

THEIR SECRET PURPOSES

Also by *Hector C. Bywater* :

NAVIES AND NATIONS

Spectator : "A book plainly outweighing in importance anything else of the kind that has appeared in recent years. Mr. Bywater ought to secure a wide public. Members of Parliament should not leave him unread."

SEA POWER IN THE PACIFIC

Maps and Charts

Morning Post : "All thinking men and women would do well to read Mr. Bywater's book, in which he discusses with admirable frankness and great lucidity the naval problems of that ocean. . . . A standard work of reference. . . . A book of absorbing interest."

THE GREAT PACIFIC WAR

Maps

Punch : "A serious study, as conceived by a real expert on the subject, of the probable course of the campaign in the event of an armed clash within the next few years between the United States and Japan. . . .

"The volume has a fascination all its own and conveys an amazing impression of historic truth."

by *Hector C. Bywater and H. C. Fefraby*

STRANGE INTELLIGENCE :

Memoirs of Naval Secret Service

Map

Manchester Guardian : "This book sets forth with expert knowledge the real methods of work and achievements of particular Secret Service men—sometimes in their own personal narratives, which often develop unexpected turns of events and tense moments undreamed of in fiction."

THEIR SECRET PURPOSES

DRAMAS AND MYSTERIES OF THE NAVAL WAR

BY

HECTOR C. BYWATER

*Associate of Inst. Naval Arch. ; Life Member and Gold
Medallist (1926) of U.S. Nav. Inst.*

AUTHOR OF

"SEA POWER IN THE PACIFIC," "THE GREAT PACIFIC WAR,"
"NAVIES AND NATIONS," AND (WITH H. C. FERRABY)
"STRANGE INTELLIGENCE (MEMOIRS OF
NAVAL SECRET SERVICE)"

VIII, 311

*With a chart of the
Post-Jutland Battle Fleets*

LONDON
CONSTABLE & CO LTD

1932

PUBLISHED BY
Constable and Company Ltd
LONDON

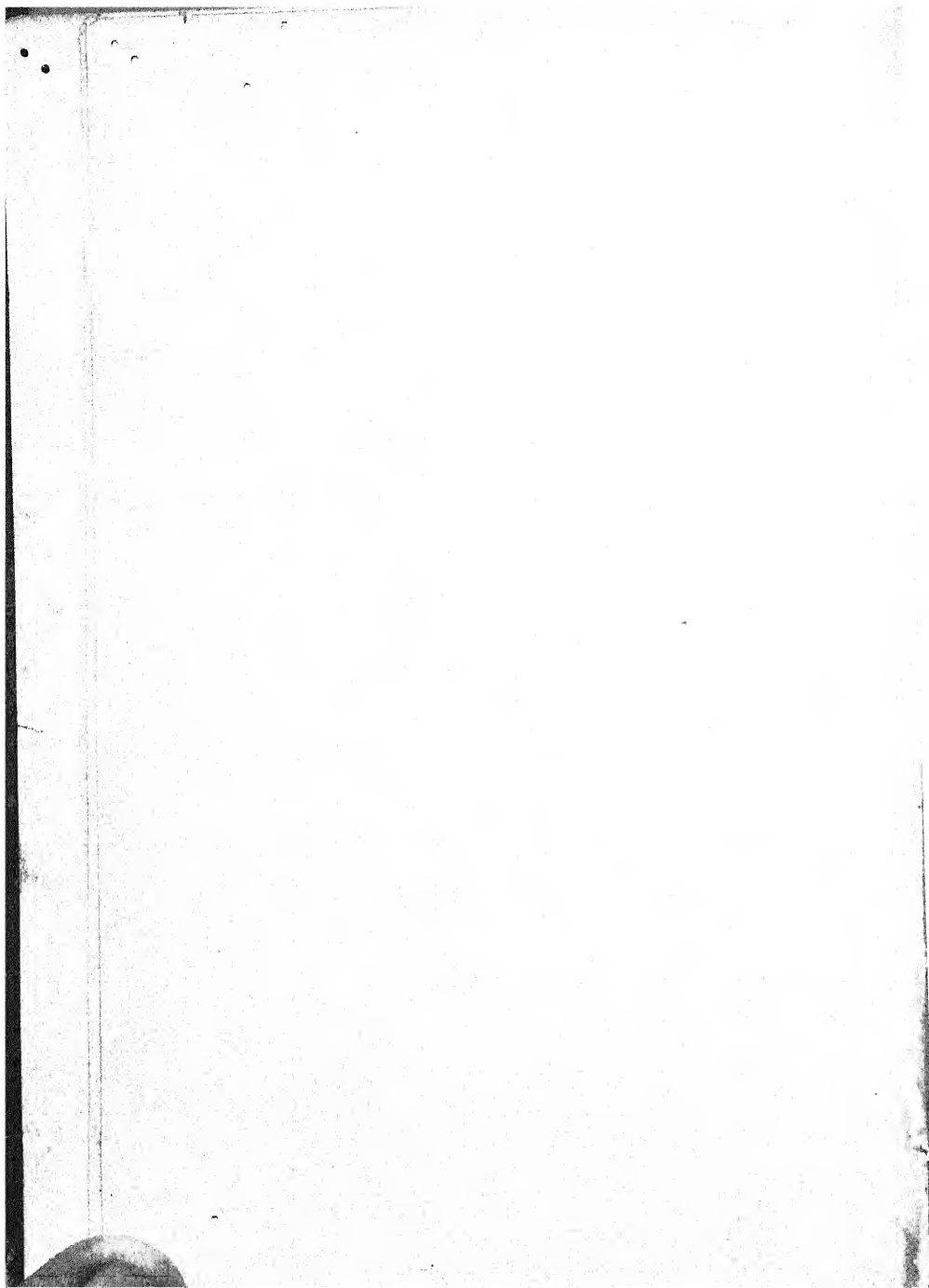
Oxford University Press
BOMBAY CALCUTTA MADRAS

The Macmillan Company
of Canada, Limited
TORONTO

First published 1932

Printed in Great Britain
RICHARD CLAY & SONS, LIMITED
BUNGAY
SUFFOLK

DEDICATED TO
FRANCESCA BYWATER



INTRODUCTION

THE purpose of this volume is to entertain rather than to instruct, and no historical importance is claimed for the disclosures it makes. They are based on episodes of the naval war which took place more or less behind the scenes, most of which are now revealed or elucidated for the first time. While naval intelligence or secret service work provides the keynote of the book, several chapters which bear no particular relation to this subject have been included because of their intrinsic interest and novelty. For example, I have described in some detail the development of British naval gunnery since the war, the facts here presented being entirely new so far as the general public is concerned. A chapter on the Washington Conference is included as a corrective to the extraordinary misconceptions on this subject which prevail not only in the United States but in this country as well. It seems to me high time that the blunt truth should be told about the antecedents and results of a political event which has had such grave reactions on British sea-power.

I am indebted to several correspondents in Germany, Austria, and Italy for part of the material embodied in this book, while a number of British naval officers have contributed valuable information. To the editor of the *Daily Telegraph* my thanks are due for permission to make extracts from articles of mine which have appeared in that journal.

The tabulated details of the post-Jutland battle fleets as they would have developed but for the Washington Treaty, and which are printed in the appendices, have been specially compiled by Mr. Maurice Prendergast, formerly editor of *Jane's Fighting Ships*, whose name carries weight in every part of the world as that of a leading authority on naval affairs. The diagram which shows in graphic form the projected development of the three great Dreadnought fleets after the war is the work of Mr. Richard Perkins, a marine draughtsman whose careful and accurate work is familiar to all naval students.

To forestall possible criticism of the chapter on the haunted German submarine, I may state that the data which reached me on this subject were carefully scrutinised and, as far as possible, checked before being used. As to the why and wherefore of the phenomena described, readers must draw their own conclusions.

HECTOR C. BYWATER.

London,
April 1932.

CONTENTS

CHAP.		PAGE
I.	ANNA OF LIBAU: A RUSSIAN TRAP IN THE BALTIC	I
II.	THE QUEER SIDE OF THINGS: A HAUNTED SUBMARINE	18
III.	FROM INFORMATION RECEIVED: SECRETS FROM THE DEEP	35
IV.	TRAGEDIES OF JUTLAND: <i>BLACK PRINCE</i> AND <i>WIESBADEN</i>	51
V.	GUY FAWKES AFLOAT: WARSHIP EXPLOSION MYSTERIES	68
VI.	WHEN ZEPPELINS BLAZED: A GREAT SECRET SERVICE COUP	87
VII.	THE SPY SCARE IN GERMANY: SOME FAMOUS CASES RECALLED	102
VIII.	GERMAN SPIES IN ENGLAND: THE ACADEMY OF ESPIONAGE	121
IX.	THE SAILOR FROM ALSACE: HOW A SPY SIGNED HIS DEATH-WARRANT	137
X.	BIG GUNS IN ACTION: SECRETS OF NAVAL SHOOTING	154
XI.	GERMANY'S ISLAND FORTRESS: THE TRUE STORY OF HELIGOLAND	173
XII.	ARMAMENTS ON THE QUIET: GERMAN IN- FORMERS AND THEIR FATE	191
XIII.	LISTENING-IN: INTELLIGENCE BY WIRELESS	206

CHAP.		PAGE
XIV.	WAR ADVENTURES OF A BRITISH AGENT: IN A GERMAN NAVAL BASE	224
XV.	DAVID AND GOLIATH: THE SLAYER OF BATTLE- SHIPS	241
XVI.	DRAMAS OF THE U-BOAT WAR: HOW THE LUSITANIA WAS AVENGED	257
XVII.	AFTER THE WAR: "DEBUNKING" THE WASH- INGTON CONFERENCE	273
	APPENDIX	290
	INDEX	303
	CHART OF THE POST-JUTLAND BATTLE FLEETS	At end

CHAPTER I

ANNA OF LIBAU: A RUSSIAN TRAP IN THE BALTIC

As the North Sea was the principal theatre of naval operations during the Great War it was natural that public attention should be concentrated on the events in that area, to the virtual exclusion of what was happening in waters more remote. Barring the battles of Coronel and the Falklands, little notice was taken of contemporary naval events that occurred beyond the confines of the Narrow Seas. Yet some of the most spirited and dramatic episodes of the war at sea were staged in other theatres. The Baltic campaign alone provided material for several volumes of history which would make most interesting reading.

It was in the Baltic that the German Navy suffered some of its most painful reverses, even though they were not serious enough to affect the course of the war as a whole. It was there, also, that German naval staff work proved least efficient. The professional reputation of Prince Henry of Prussia, the Kaiser's brother, who had the misfortune to be commander-in-chief in the Baltic, was permanently damaged by the futile and costly operations during the first part of the war.

His troubles began on August 26, 1914, when a German light squadron cruising off Odensholm lost its bearings in a dense fog. The new cruiser *Magdeburg* ran ashore and became a total wreck. While salvage work was proceeding two Russian cruisers

suddenly appeared and opened fire. The *Magdeburg's* officers seem to have lost their heads, for they hastily abandoned ship without waiting to destroy the secret papers and signal code. These were recovered by the Russians, who promptly transmitted copies to the British Admiralty. How bitterly the Germans had cause to rue the *Magdeburg* affair has been related elsewhere.¹

On September 24 a rumour that strong British forces were approaching the Baltic gave the German naval command a bad attack of nerves. Instead of preparing to strike a blow at the British fleet's communications, which would have been the soundest thing to do in such a contingency, they hurriedly prepared to send reinforcements to the Baltic command through the Kiel Canal—a purely defensive measure which would have left the initiative entirely to the British. No less than fourteen Dreadnoughts were ordered to Kiel, but it was found that as coal and ammunition had to be disembarked to lighten the ships for the passage it would take them nearly a week to arrive. The rumour proved to be unfounded, but the Germans remained extremely nervous about their position in the Baltic, and it is doubtful whether the British Admiralty took full advantage of this notorious fact.

The few submarines we despatched there caused a commotion out of all proportion to their strength. They found many targets, and besides destroying a large number of merchantmen loaded with precious supplies for the enemy, they sank many German war-ships, including the big armoured cruiser *Prinz Adalbert* with all hands. The Russians, too, laid mines which took a heavy toll of German tonnage.

¹ See *Strange Intelligence* (Bywater and Ferraby).

From the very beginning Germany aimed at destroying or bottling-up the Russian fleet. This was sound policy, for had the Tsarist navy been properly handled it might have given the enemy a warm time in the Baltic. Even as things were, it held its own for more than three years, resisting every attempt by the Germans to establish control of the Gulf of Riga. In the end it took half the High Seas Fleet to conquer Riga itself and the islands at the entrance to the Gulf. This was effected in the autumn of 1917.

The heaviest German losses were incurred through mines, in the use of which the Russians showed great skill and ingenuity. But the Russian naval command owed much to its espionage service, which scored a number of striking successes. One, in particular, deserves narration as a piquant page of secret history.

Among the warrant officers in the German Baltic squadron was Kurt Bremermann, a stalwart, fair-haired Rhinelander, blessed with more than the average share of masculine beauty. Well aware of his advantages in this respect he made the most of them in feminine society, and he often boasted that no woman, whether staid *Hausfrau* or timid *Backfisch*, could resist him. With his trim little beard—much affected by the warrant-officer class—his moustaches curled à la Kaiser, and his ingratiating smile, he was the self-styled Don Juan of Kiel, passing from conquest to conquest during his spells of shore leave.

But although vain and boastful among women, Kurt was a zealous officer, of whom his superiors thought highly. He was serving in a cruiser when Libau was occupied by the Germans, and at this port, true to his instincts, he made a number of female acquaintances. To one of these he completely lost his heart. Anna, the waitress of a *Weinstube* in the town, was

undeniably a beauty. Her figure was perfect, and masses of raven hair framed a lovely face. Moreover, there was about her an air of social distinction and reserve unusual in one of her class and calling. Her speech was cultured, and besides her native Russian she had a good command of German. Possessing such qualities, it is small wonder that she soon had the susceptible sailor at her feet.

But for once he found no easy conquest. The lady was coy and demure, not to be swept away by the shock tactics of which her suitor was a skilled exponent, nor was she content to listen only to the tender nonsense which Kurt believed to be the sole conversation of interest to women. Anna was intelligent; she was deeply interested in the war, ardently pro-German, and always anxious to hear the latest news of victories against the detested Russians. So, much against his will, Kurt was forced to talk by the hour of politics and "shop" if he wished to enjoy Anna's society. She never tried to worm secrets from him, nor does he appear to have given away any of importance, for apart from his besetting weakness he was not a fool.

But by now he was deeply in love, and at the same time consumed with jealousy. Anna was a high favourite with his comrades, and being a sensible girl she did not allow Kurt to monopolise her. No doubt he suffered torments when his ship was at sea, imagining his beloved in the arms of another admirer—perhaps even a common bluejacket—whilst he, the smart and important warrant officer, was facing danger for the Fatherland. Then, as luck would have it, his ship was mined, and he was forced to spend three months at Kiel while repairs were being made.

It was now that the Germans were planning their first big naval offensive in the Gulf of Riga. Using

Libau as a base they proposed to sweep a channel through the Russian minefields and then, under cover of a heavy bombardment, land troops on the island of Ösel and, if possible, on the mainland near Riga. Mines were the chief difficulty. The Russians seemed to have an endless stock of them. Hundreds had already been swept up, but hundreds more sprouted like mushrooms, causing heavy losses in the German flotillas.

Kurt Bremermann's ship returned to Libau a fortnight before the attack was timed to begin. He lost no time in seeking out his innamorata, whom he found somewhat kinder than before, though still inclined to treat his advances with coolness. She appeared to have something on her mind, and the infatuated sailor, tortured with jealousy, implored her to confide in him. Touched by his obvious devotion, at last she broke down and told her secret.

At the beginning of the war she had been in love with a Russian naval officer who was stationed at Libau. Though she detested Russians as a rule, she adored this man and was willing to give up everything for him. She was not quite certain what his duties were, but believed him to have been connected with the coastal defences.

"Do you love him still?" queried the unhappy Kurt.

"No, I hate him for the way he treated me, and I would give anything to get my revenge on him. We had been living together for a year, and I was just going to have a child, when the war came and the Russians decided to evacuate Libau. Before then my lover had promised to take me with him to Petersburg, to give me furs and jewellery, and to see that the child had everything it needed. He even hinted at marriage,

for he knew that I came of a good Courland family with which it would be no shame even for an officer to unite.

"The evacuation was ordered to take place in a week's time. I took it for granted that I was to accompany my lover, and made everything ready. Many of his things were at my apartment, and I packed them with mine. One evening he came in, and I saw at once that something was wrong. He had been drinking, and when I went to embrace him he thrust me away.

" 'No more of this,' he said brutally. 'Our affair has gone on long enough. I have come to tell you so, and to say good-bye. We are at war, and you and all your people here in Libau hate Russia and would welcome the Germans.'

"At first I thought it was only the drink that was making him use these cruel words, but I soon found he was in deadly earnest. You can imagine my feelings. Sobbing, I flung myself at his feet, reminding him of all his promises, and beseeching him not to desert me and our unborn child. But I could not move him. He even said the child was not his—liar and devil that he was!" And her fine eyes blazed with a passion that boded ill for the man who had betrayed her.

"But I was desperate and still thought to win him back. At last I recalled to him his half-promise of marriage. He laughed in my face.

" 'Why, you little fool, did you seriously think I would marry a low-born woman like you, who is known to have had many lovers! Besides, I already have a wife in Petersburg, and two children.'

"That was too much. I lost all control of myself and there was a terrible scene. When I reviled him

as a liar and a coward he struck me, and hurled me half-senseless to the floor. As I lay there he went out, calling over his shoulder that he had done with me and would send his orderly round in the morning to collect his belongings.

"But late that night there was an alarm in the city. A Zeppelin appeared and dropped bombs, and everyone thought the German fleet was coming. I did not care if all Libau were blown up. Life had lost interest for me." She stared out of the window with unseeing eyes, while Kurt Bremermann, his brain a welter of conflicting emotions, clenched his strong hands but did not speak.

"All that night I lay on the floor," she resumed; "too sick at heart to raise myself. Shortly before dawn there came a knocking at the door. It was my late lover's orderly. I told him to pack his master's effects as quickly as he could. The man was kind-hearted, for noticing my distress he collected the things in a few minutes and left me, with some muttered words of sympathy.

"Soon afterwards I heard bugle-calls in the streets, and saw columns of Russian soldiers marching past. The evacuation had begun. Hours later I crawled to my bedroom. On the table stood a photograph of my lover in full naval uniform. I tore it across and thrust the pieces into the stove. There may be women who could forgive a man who had treated them so. But not I. When he said those unpardonable words and struck me down, all my love turned to hatred and loathing.

"I wanted to die, but I could not kill myself. My baby must have a chance to live. So I got through the next few weeks somehow, and then went to the Tsarina hospital, where my son was born. He was a

lovely child, with his father's eyes. That should have made me hate him, but it did not. Since then I have worked in the café. A friend looks after the child, and I see him twice a week."

"Have you heard anything more of the man?" asked Kurt, rather coldly; for though his better nature had been stirred by the tragic story, he could not bear to think that the woman he loved had borne another man's child.

"No," she replied indifferently. Then, with a sudden blaze of passion, she added: "But I hope he is dead. And that reminds me of something else. Weeks after he had left me I discovered a leather portfolio belonging to him which his orderly had overlooked. It was full of papers, and among them was a photograph of himself with a woman and two children. His family in Petersburg! And he had had the insolence to bring that picture with him to my apartment!"

Kurt's wandering attention was at once arrested. For a moment he forgot his gloomy reflections. A Russian naval officer, said to be connected with the coastal defences, might carry some very interesting documents in his portfolio. They would certainly be worth examining.

"What were the other papers?" he asked eagerly.

"How should I know? Something to do with his work, I think, though I hardly glanced at them. That accursed picture was enough for me. I tore it into pieces."

But Kurt persisted. Had she destroyed the papers? No, they were still in the portfolio, and, yes, he could see them if he was interested in such rubbish—more interested than in her and her troubles.

After the tearful and tender interlude which seemed

to be indicated, the portfolio was placed before him. He took out a sheaf of documents. They were in Russian, and obviously of official origin, since most of them were embossed with the double-headed eagle. Among them were maps and charts, the significance of which needed no interpretation. Here were the defences of the Riga Gulf shown in full detail: forts, minefields, and other obstructions. Each chart bore numerous markings in coloured inks and copious marginal notes.

Kurt knew that the key to the whole system of Russian defence in that area was in his hands. Professional excitement completely mastered private emotion. He begged Anna to let him keep the papers. Had she refused he would have kept them none the less, but she assented coldly, and Kurt, with a lamentable lack of chivalry, cut the interview short. He loved the woman still, but she must wait. Here was business that would brook no delay.

Half-an-hour later he was in his captain's cabin, exhibiting the documents and explaining how he had obtained them, and presently he accompanied his superior to the flagship for an interview with the German commander-in-chief. The fleet staff officers were summoned, and the maps, charts, and papers underwent close scrutiny. What the maps disclosed the documents, when translated, confirmed. Here were not only all the minefields and torpedo stations guarding the Gulf, but the swept passages used by Russian patrol craft.

The Admiral was highly elated. With this information before him he saw that his task would be an easy one. Now that the Russian channels were known, the tedious and dangerous mine-sweeping operations which he had contemplated would no longer be

necessary. The map showed shore batteries which he had not suspected, but now that their position was known they could speedily be silenced.

He at once ordered modifications to be made in the original plan. Instead of waiting until the sweepers had cleared the way, the destroyers detailed to cover the landing were to steam straight in, followed by boats containing the beach parties and troops, while the heavy ships offshore, thanks to the secret Russian charts, could safely approach much nearer than had been deemed possible and open a devastating cannonade on the batteries. If, as seemed certain, a foothold were gained at the first attack, it would be a simple matter to throw a much larger force ashore, and Riga itself might be seized by a *coup de main*.

Doubtless the Admiral had visions of congratulatory telegrams from the Supreme War Lord and quick promotion. His enthusiasm was shared by his officers, and Kurt Bremermann was loudly praised for the great service he had done to the Fatherland. Nothing could have been more opportune than the discovery of the papers, for the want of success which had hitherto attended the operations of the Baltic squadron had been the subject of scathing comment at German G.H.Q., and the Admiral had trembled for this command.

Now, however, the luck had changed. The date of the attack was advanced by several days. It was recognised that since the secret charts were prepared the Russians might have placed fresh mines in positions not shown thereon, and in any case it was an elementary precaution to survey the swept channels before the expedition started, for conceivably the enemy had made new channels and mined-up the old ones. Consequently a half-flotilla of old torpedo-boats was

ordered to carry out a reconnaissance thirty-six hours before the attack.

This dangerous mission was performed at night, the ships navigating with masked lights. Towing their sweeps they passed through the two channels indicated on the chart without mishap. No mines were discovered, and although the boats steered very close to one of the Russian batteries not a shot was fired. This satisfied the German Admiral that no change had been made in the minefields since the charts were marked. It was therefore with a light heart that, at the appointed time, he ordered the attack to be launched.

At zero hour the vanguard of destroyers steamed into the Gulf. A low mist hung over the sea, reducing visibility to a few hundred yards; but this, while hampering the ships detailed to cover the landing with their guns, also screened the advancing flotilla from the enemy's view.

The boats were well inside before the first Russian battery opened. Located by the rockets that went up and the flashes of the guns, it was at once brought under heavy fire by the four old battleships and the cruisers comprising the German main body. Meanwhile the destroyers were steaming confidently through the Russian swept channel which zigzagged among the thickly-planted minefields. On the bridge of each vessel the navigating officer pored over his copy of the "secret" chart and gave the necessary helm orders at every deviation shown in the blue-inked safety track.

Half the distance had been covered when sudden disaster smote the flotilla. As the leading destroyer made a turn to starboard in accordance with the chart markings there were two deafening explosions. Gigantic columns of water shot up, and when they

subsided the stricken boat was seen to be on the point of sinking, her back having been broken.

The destroyer next astern increased speed and raced to the rescue, but her bows fouled a cable linking two mines together and brought them crashing against her sides, the detonations blowing her out of the water. As she went to the bottom like a stone the rest of the flotilla was thrown into confusion. From the commodore's boat, now almost submerged, the signal to withdraw was flying. The remaining craft turned sharply in obedience to this signal, only to find themselves in a nest of mines, which seemed to be everywhere.

A third destroyer disappeared in a smother of flame, smoke, and foam; a fourth lay helpless with her stern blown off, while two others were seriously damaged, though still able to move. To make matters worse, a six-inch gun shore battery, not shown on the secret charts, opened a galling fire on the demoralised flotilla. Several destroyers were hit and two mine-sweepers sunk outright.

Alarmed by the series of explosions which came reverberating across the water, the German Admiral recalled by searchlight and wireless signals the torpedo-boats and launches which were towing the landing parties. This order came in the nick of time, for other enemy batteries had now unmasked from unsuspected positions, and the sea was lashed into foam by a barrage of shrapnel and high-explosives through which no boat could have passed without being destroyed. Russian shells followed the retreating destroyers with merciless precision, and a few projectiles pitched uncomfortably close to a light cruiser which had steamed inshore to cover the withdrawal.

The return fire from the German ships was ineffec-

tive, for their guns had been carefully ranged beforehand on the nearest shore batteries shown on the Russian chart, and which, as was now painfully evident, did not exist. As the mist lay thick along the land the actual Russian batteries were practically invisible, though it was obvious from the accuracy of the shooting that the German ships could be clearly seen, probably from a lofty control station.

In these circumstances nothing was to be gained by pressing the attack. The landing parties were re-embarked, the last of the surviving destroyers, with shells spouting all round it, steamed out of the trap at high speed, and the whole squadron stood out to sea, giving a wide berth to the deadly minefields and the big guns which had served the Russians to such good purpose. The repulse was complete.

It is not difficult to imagine the fury of the German Admiral. The expedition he had launched with such high hopes a few hours before had ended in disaster, unredeemed by any counter-blow. Four destroyers and two smaller craft had been lost and others were damaged, the death-roll being a heavy one. Only by a hair's-breadth had a worse catastrophe been averted, for had the first alarm been delayed ten minutes the ships' boats, crowded with troops, must have been caught in the barrage and destroyed. So near had they approached the fiery zone that several casualties from shell splinters had been suffered.

To add to the Admiral's wrath was the bitter knowledge that he had been completely tricked. Not only were the "secret" Russian charts spurious, but they must have been deliberately planted on him. That he, a veteran flag officer of the Imperial German Navy, should have fallen a victim to this booby-trap was too much. When the squadron reached a safer

anchorage the flagship draped herself in signal bunting. All the commanding officers, including those of the destroyers which had escaped from the ambush, were summoned on board, and with them went the most bewildered and unhappy man in the squadron—Warrant Officer Kurt Bremermann. The atmosphere at that conference must have been somewhat heated, but what actually happened can only be surmised. Our knowledge is limited to the fact that Kurt was sent to Kiel under arrest to face a charge of high treason, while in the same ship travelled the German Admiral, who had been relieved of his command by a brusque telegram from G.H.Q. at Pless.

The mechanism of the trap into which the squadron had been enticed presented no mystery. That the charts and accompanying documents had been "faked" by the Russian Admiralty was obvious, and as soon as they were known to have reached the German Commander-in-Chief it was simple enough to take the necessary steps. A close watch was kept on the swept channels indicated on the chart to discover whether the Germans would explore them before trusting their ships inside. Consequently, the nocturnal reconnaissance by German torpedo-boats was observed, and on the following night hundreds of new mines were sown right across the "safe" channels.

The "batteries" so carefully delineated were dummies, equipped with rockets and small charges of powder to simulate the flash of guns. These pyrotechnics, touched off at a distance by electricity, reproduced all the effects of a battery in action. It was a *ruse de guerre* of very ancient origin, but it completely fooled the Germans, who had wasted much powder and shot in "silencing" these Quaker batteries. The actual battery positions were never hit; indeed,

the Russians claimed to have repulsed the attack without losing a man.

So far as Kurt Bremermann was concerned, matters did not develop to the extent of a court-martial. Under examination he was able to satisfy his superiors that he had been the innocent dupe in an ingenious and carefully-laid plot by the Russian secret service. He stuck to his version of how the documents had come into his possession, and, his previous record being very good, he was believed.

But if he was innocent, what of the fair Anna, but for whose heartrending story he would never have heard of those infernal charts? Orders were at once despatched to Libau for the arrest of this mysterious beauty. But they arrived too late: Anna had disappeared without trace a few days before the disaster to the German squadron. There was evidence that she had passed through the German lines and made her way into uninvaded Russian territory. This tended to confirm the already strong suspicions which had been aroused as to her *bona fides*.

Efforts were made to establish her identity. Kurt Bremermann, again interrogated, produced a small snapshot of his erstwhile sweetheart, and this was forwarded to the secret service bureau in Berlin. It elicited a report in the following terms:

“The photograph is that of Katrina Iselmann, born at Riga in 1887, her mother being of noble family. Katrina was educated at Moscow, and served for some years as an amanuensis in the Petersburg Admiralty. Believed to have joined the Russian secret service in 1913 and to have operated in Germany, where certain of our army and navy officers became too intimate with her.

A warrant issued for her arrest in March 1914 was not executed, as she could not be traced. Is said to be a good actress and to have great personal charm."

The amorous German sailor upon whom this Russian siren had practised her arts so successfully came through the war unscathed. But though he did his duty manfully he gained neither honours nor promotion. The black mark against him was too deep to be erased. A blunder is often penalised more severely than a crime. His photograph of "Anna" was impounded, but he still has a souvenir of her in the form of a letter which reached him at Kiel months after the Riga affair. It had been posted in Berlin, but that signified nothing.

"My poor Kurt," she wrote. "I cannot help feeling sorry for you in your disillusionment—if, that is, you loved me as dearly as you protested. It was no pleasure for me to deceive you, but just as you were doing your duty to your country, so was I serving mine. I have no remorse for having palmed off those false plans on you, and I only regret that the disaster into which they led the German fleet was not ten times worse. I am sorry only that you must have suffered when you found me false. I can still see your poor, agonised face as I poured out my pitiful story. Well, dear Kurt, be tranquil. My perjured Russian lover never existed outside my imagination, neither did my little deserted baby. I am still heart-whole, but no doubt you have found other attractions. After all, it was your own fault that you were chosen as the instrument of deception. You had

boasted so much to your friends about your conquests that I had determined to meet this redoubtable lady-killer. He might be just the man for my purpose. And so you proved to be. You were quite nice, but, oh, so stupid ; just clay in the hands of a clever woman. Learn from experience that a pretty face is not always what it seems. The woman-hunter often ends by being caught in his own toils. Even though you can't forgive me, I wish you well.—‘ANNA.’ ”

Kurt Bremermann, now a stevedore in Hamburg, could not bring himself to destroy this letter, in spite of the painful memories it aroused. He reads it often, and sometimes tells the story over a pipe and a glass at his *Stammtisch* in the beer-garden. And that is how this chapter came to be written.

CHAPTER II

THE QUEER SIDE OF THINGS: A HAUNTED SUBMARINE

A WHOLE library of "thrillers" might be written from material furnished by the queer incidents which punctuate the sombre history of the Great War. The naval campaign was singularly rich in episodes verging on the fantastic. Of these the most startling could not, even to-day, be disclosed without a breach of confidence, but there are others hardly less strange which may be told without impropriety. The stolen submarine, the haunted U-boat, the explosive magnum—what a mixture of comedy and tragedy might be compounded from these ingredients alone!

In ordinary times the theft of a submarine would cause a world-wide sensation, but in the autumn of 1914, amidst the tremendous events then convulsing Europe, it passed almost unnoticed. Let us, then, rescue from oblivion the name of Signor Angelo Belloni, the hero of this singular story. An officer in the Italian naval reserve, he was smitten with a violent attack of war-fever. Chafing under the neutrality of his own Government he finally conceived the notion of conducting a private war against the hated "Te-deschi." Single-handed he would make good Italy's claim to the Adriatic as "*mare nostrum*," and thus, as he doubtless hoped, spur the timorous politicians at Rome into direct action.

Casting about for the means to carry his idea into effect, he thought of the submarine which had just

been launched from the F.I.A.T. San Giorgio shipyard at Spezia for the Roumanian Government. What instrument more suited to his purpose? Making use of his credentials as a reservist officer, Belloni visited the shipyard and satisfied himself that it would be quite easy to abstract the submarine, which was receiving the finishing touches in an outer basin. Save for a few dockyard hands working on board the boat was unguarded, and as enough fuel had been shipped for the preliminary trials there would be no difficulty in getting her to sea. On the evening of October 4, Belloni, wearing his uniform, walked up the gangway and took over command. He told the workmen that he had been instructed to take the submarine out for wireless trials, and that they were to act as his crew, for which service they would receive extra pay. They were quite satisfied and asked no questions.

Waiting until the shipyard was practically deserted, Belloni ordered the motors to be started up and the mooring ropes cast off. As dusk was falling the boat headed out into the Gulf of Spezia, with the self-appointed captain on the bridge and his "crew" of fifteen landlubbers at their posts. Then, when the vessel was safely at sea, Belloni descended to make a tour of inspection. To his intense mortification he discovered that no torpedoes were on board, which meant that he could do nothing against the "enemy." Worse still, there was not enough fuel for more than a two days' cruise, and provisions and water were scarce. He stated afterwards that he hoped to procure torpedoes and stores from an Allied warship, and with this aim he shaped a course for Corsica, expecting to find French men-of-war off the island. To allay the suspicions of his crew he opened an envelope which,

he pretended, contained sealed orders instructing him to meet a French cruiser at Ajaccio.

Meanwhile the disappearance of the submarine had been reported to the Italian Government, and a torpedo-boat was despatched in pursuit. Belloni had left letters addressed to his mother and to the F.I.A.T. Company. To the latter he wrote:

“I am not crazy, nor is there any agreement with my crew, who are in complete ignorance of my project; nor have I any arrangement with any person or authority, Italian or otherwise.”

To his mother he explained that he was going out to fight his country's enemies, and hoped to die gloriously in action. “Do not grieve for me,” he ended. The adjuration was superfluous. An unkind Fate had prepared an anti-climax which was to reduce the escapade to mere buffoonery.

In due course the submarine arrived at Rossa Island without meeting any French ship. Thence she proceeded to Ajaccio. The French gunners in the shore batteries not unnaturally mistook her for an enemy U-boat, and were on the point of firing when, in the nick of time, she hoisted Italian colours. The strange craft was promptly boarded by armed guards, who listened stolidly to Belloni's impassioned greetings to his French “comrades-in-arms,” ignored his request for munitions and stores, and formally took into custody the boat and its crew. The latter repudiated their commander in forcible Genoese *argot*, mingled with picturesque threats of vengeance upon him for luring them into a crazy adventure. Then an Italian-destroyer arrived, Belloni was arrested and locked in a cabin, and the submarine towed back to Spezia.

Tried by court-martial the would-be hero escaped with a mild sentence, his judges probably being of opinion that the ridicule he had incurred was a heavy punishment in itself. His subsequent career is unknown, but it is to be hoped that when, six months later, Italy did enter the war, his combative instincts were given free rein in a more legitimate sphere of action. He is in any case assured of a niche in history, be it ever so humble, as the only man who has ever stolen a submarine.

Turning from comedy to tragedy, I propose to relate the curious history of *UB 65*, the "hoodoo" submarine which is still mentioned with bated breath by veterans of the German U-boat corps. Incredible as they may seem, the facts of the case are vouched for by a number of trustworthy witnesses, several of whom are quoted by Professor Dr. Hecht, the distinguished psychologist, in the pamphlet he published after the war. The professor frankly admits that the phenomena he investigated do not lend themselves to explanation on "rational" grounds, and while as a scientist he deprecates the suggestion of supernatural agency, he fails to put forward an alternative theory. The case of *UB 65* must therefore go on record as one of the best documented ghost stories of the sea.

It begins in the summer of 1916, shortly after the boat's keel had been laid. She was one of a group of twenty-four medium submarines designed with a view to operating from the Flanders coast. Her tonnage was 510, her surface speed thirteen knots, and her complement three officers and thirty-one ratings. A week after work had been started on the vessel a fatal accident occurred. As a heavy girder was being placed in position it slipped and crashed down on the berth. One workman was killed outright; a second was

M-9117

4066

pinned to the ground for an hour before he could be released, and subsequently died in agony. When the boat was nearly completed three men were overcome by fumes in the engine-room, all of whom died.

On her trial trip *UB 65* ran into a fierce gale, and a bluejacket was washed overboard and drowned. While the boat was carrying out diving trials one of the tanks developed a leak, and it was twelve hours before she could be brought to the surface. Water must have reached the electric batteries, for the atmosphere inside was charged with poisonous fumes, and when at length the hatches were opened, officers and men staggered out half-asphyxiated. On returning from her maiden cruise *UB 65* was taking in torpedoes when for some reason never explained a war-head detonated. Five people, including the second officer, were killed instantly, and several others injured. The boat had to go into dockyard for extensive repairs.

Some weeks later, while she was still in port, a panic-stricken seaman dashed into the wardroom, crying, "Herr Ober-Leutnant, the dead officer is on board!" He was sternly rebuked by the captain and accused of being drunk, but this he denied, and swore not only that he had just seen the late second officer walking up the gang-plank, but that another bluejacket, one Petersen, had also seen the apparition. The captain and other officers then went on deck, where they found Petersen crouching in the lee of the conning-tower. He, too, was pallid with fear, but in answer to a sharp question he stammered out that the dead officer had come on board, walked towards the bows, and stood there with folded arms. The terrified bluejacket promptly hid behind the conning-tower, and when he looked again the unearthly visitant had vanished.

In view of this positive testimony by two men who were obviously sober, and both of whom bore excellent characters, it was impossible to doubt that something mysterious had occurred. For a time the idea was entertained that someone had perpetrated a practical joke in the worst taste, but inquiries showed this to be out of the question. The incident had a bad effect on the morale of the crew, who were now convinced that the submarine and all on board her were doomed. Two days before the next cruise Petersen deserted, and there is no record of his having been traced.

Leaving Heligoland on New Year's Day, 1918, *UB 65* had an uneventful voyage to Zeebrugge, and after a stay of ten days sailed on a war cruise in the Channel. On the evening of January 21 she was fifteen miles south of Portland Bill. It was blowing up for a dirty night, the sea was already rough, and sheets of spray were flying over the conning-tower. The starboard look-out, peering over the canvas bridge-screen, was amazed to see a figure, apparently an officer, standing just below on the plunging deck, which was repeatedly swept by heavy seas. How he had got there was a mystery, for all hatches save that of the conning-tower were battened down.

The look-out was about to hail the officer and warn him of his danger when the latter turned and gazed up at the bridge, clearly revealing, even in the twilight that was fast merging into darkness, the features of the second officer whose mutilated remains lay in the naval cemetery at Wilhelmshaven.

"Herrgott, it's the ghost!" yelled the seaman, staggering back with hands outstretched to ward off the terrible visitor. He collided with the captain, who cursed him roundly, but a second later the captain himself, peering down from the bridge, was struck

speechless by what he saw. Recovering himself he sent a stentorian shout below, and other seamen raced up the ladder, to find the bridge party talking excitedly together and pointing to the now deserted deck, which was smothered in foam.

Thereafter the hands went about their work with gloomy, dejected faces, and even the officers could not conceal their forebodings. Surely a vessel that carried as passenger the wraith of a former officer must be bound for the port of missing ships! Throughout every watch on deck the men kept glancing furtively over their shoulders, dreading to see what they firmly believed to be the messenger of doom. But this particular cruise passed off without any untoward event. Two steamers were torpedoed and sunk, and two others attacked by gunfire. One of these escaped, but the second appeared to be badly hit, for she stopped and began to lower her boats.

In ordinary circumstances the U-boat captain would have closed in to finish her off, but in this case he kept his distance and eventually dived without renewing the attack. It is said that he suspected the vessel of being a Q-ship, and saw in her the instrument ordained to compass the destruction of his boat. According to a statement made to Professor Hecht by a former member of *UB 65's* crew, all the officers were under this impression, not to mention the ratings, who lived in constant expectation of disaster.

But the submarine returned safely to Bruges. One night in February, while the boat was lying inside one of the bomb-proof shelters, an air raid warning was sounded. The commanding officer had just gone ashore to visit the casino, but on hearing the sirens he retraced his steps. He was about to enter the shelter when a shell or bomb splinter took off his head. His

death was witnessed by several members of the crew, who came ashore and carried the body on board. That same night a bluejacket swore that he had seen the ghost again, but his story could not be verified.

By this time the strange happenings on board *UB 65* had come to the ears of authority. The commodore of submarines visited the vessel and personally questioned all her company. Inclined to be sceptical at first, he was obviously impressed by the evidence he heard, and still more by the unanimous appeal of the crew to be drafted to another submarine. Although officially this request was ignored, it is a fact that on one pretext or another most of the men were transferred elsewhere, and when the time came for *UB 65*'s next cruise she was ordered into dockyard instead, her place being taken by a boat newly arrived from the Bight.

She remained at Bruges for a month. During this time, according to Professor Hecht, a Lutheran pastor came on board and held a special service to exorcise evil spirits. This, unfortunately, had the effect of upsetting the nerves of the new crew, already perturbed by the stories they had heard from the two or three old hands who had remained in the ship. But the new captain refused to tolerate what he called "this damned nonsense." He threatened to discipline severely any man who mentioned the "ghost" or spread any yarns likely to cause uneasiness.

As if in justification of this bold attitude on the part of the commanding officer, the next two cruises passed off successfully. There were no unusual incidents, and a fair percentage of shipping was destroyed. In May the captain was relieved, his successor being Lieut.-Commander Schelle. The events of the next few

weeks are described by a petty officer who had served in the ship from her first commission:

"UB 65 never was a 'happy' ship, though we were always fortunate in our officers. There was something in the atmosphere on board which made one uneasy. Perhaps, knowing her evil history, we imagined things, but I am convinced myself that she was haunted. One night at sea I saw an officer standing on deck. He was not one of us. I caught only a glimpse of him, but a shipmate who was nearer swore that he recognised our former second officer, who had been killed long before by a torpedo explosion. On other nights, while lying in my bunk, I saw a strange officer walk through the ship. He always went into the forward torpedo-room, but never came out again. Several of the bluejackets saw the ghost quite often, but others were unable to see it, even when it was pointed out to them standing only a few feet away.

"Our last captain but one would never admit the existence of anything supernatural, but once or twice, when coming on deck, I observed him to be very agitated, and was told by the men that the ghost had been walking on the foredeck. When the captain's attention was drawn to it he pretended to see nothing, and scolded the watch for being a pack of nervous fools. But afterwards I heard from a mess steward at the officers' casino that our captain openly declared his ship to be 'haunted by devils.'

"During May we cruised in the Channel and off the coast of Spain. That was the worst trip of all. We had been at sea only a couple of days when Eberhard, a torpedo gunner, went raving mad and had to be tied up. He kept screaming that the ghost was after him, and he made such a noise that the captain dosed him with morphia. When he woke up he

seemed better, and was allowed to go on deck, with a rating in charge of him. But the fit seized him again, and hurling his escort aside he jumped overboard. We stopped the ship and lowered the dinghy, but he never came up again.

"When off Ushant we ran into heavy weather. The chief engineer slipped on the gangway and fractured his right leg. Soon after this we sighted a tramp steamer and pursued her, firing our gun. Waves were coming over the deck, and just after the fifth round a big sea broke on board. Two of the gun's crew managed to hang on and save themselves, but the loading number, Richard Meyer, was swept away and drowned. The survivors were ordered below and the chase abandoned. We all knew these successive misfortunes were not mere accidents. We looked at each other with the unspoken question, 'Who is to go next?' We sighted an enemy patrol and had to dive hurriedly. The boat went down too sharply by the bows, and I heard groans from the men. Was it all up with us so soon? Even the captain was nervous, for as soon as the boat was on an even keel he surfaced again, without waiting to determine the position of the enemy. She was less than half a kilometre away, but as the weather was misty she overlooked us and we dived again, this time very carefully.

"Three times on that trip I saw the ghost, and so did several of my messmates. The men were so depressed that they went about like sleep-walkers, performing their duties automatically and starting at every unusual sound. I do not think any of us expected to get back alive. At this date the Dover Strait was becoming a graveyard for the U-boats. We had slipped through unmolested, it is true, but should we be as lucky on the return voyage? Quite recently our

'chummy ship,' *UB 55*, had been blown up in the Dover barrage, and in the same month *UB 33* and *UC 79* were both destroyed in the same trap. I was ready to wager that the shattered hull of our own boat would soon be lying beside them.

"As we entered the barrage our presence must have been detected, for showers of depth-charges began to explode all round us. Two seemed to be right on top of us; the electric bulbs were shattered, the boat heeled over at an angle of twenty-five degrees, and Coxswain Lohmann, losing his foothold, was dashed against the switchboard. He fell senseless with three ribs fractured and severe internal injuries, from which he died in hospital a week later. For over an hour the depth-charges followed us, then our pursuers must have lost the trail, for the bomb detonations and the propeller noises died away. After that we had a clear run to Zeebrugge, and in due course found ourselves at our usual berth in Bruges. So far from being relieved at our escape, most of us felt that it was merely prolonging the agony.

"Then I had a stroke of luck. I went down with acute rheumatism and was discharged to hospital. My messmate Wernicke came to see me the day before *UB 65* sailed. He said he had come to say good-bye, as he knew he would never return. I knew it too. He left me most of his personal effects and asked me to forward them to his wife when 'the news comes in.' On July 31 *UB 65* was posted as missing. Not till after the war did I learn anything of her fate, and to this day her end remains a mystery. According to the casualty returns she went down with thirty-four officers and men, but I shall always believe she carried an extra officer whose ghostly hand piloted the ship to her doom."

It is true that a mystery envelops the end of *U 65*. On July 10, 1918, the American submarine *L 2*, patrolling off Cape Clear at periscope depth, sighted a U-boat on the surface. It was *UB 65*. The American craft manœuvred into attacking position and was on the point of slipping her bow torpedoes when the target was suddenly blotted out by a tremendous explosion. When the cascade of water and wreckage subsided the U-boat had vanished.

Many theories have been advanced to account for her sudden exit. It has been suggested that she may have been accidentally torpedoed by another German submarine, or alternatively that she herself fired a badly-adjusted torpedo which ran wild and returned like a boomerang to blow her sky-high.

Professor Hecht offers a more plausible explanation—namely, that by some means the mouth of a torpedo tube had been bent or torn, with the result that when the next torpedo was fired it fouled an obstruction at the end of the tube and detonated not only itself but the torpedoes in the other tubes. This would certainly account for the extraordinary violence of the explosion observed from the American submarine. But of the other strange things that happened in *UB 65* during her brief career there is, as I have hinted, no explanation other than that suggested by Hamlet's remark to the sorely-puzzled Horatio. So we must leave it at that.

Although less mysterious, the episode of the explosive magnum has never been really cleared up, and it is still a moot point whether the story concerns a particularly grim piece of secret service work or a private act of vengeance. Those who survived the affair inclined to the second opinion, and they, no doubt, were in possession of information which has not been

disclosed. Be that as it may, the essential facts are plain enough.

In the early summer of 1917 there was jubilation among the officers of the Flanders U-boat flotilla. The great submarine offensive was at its height. Mercantile tonnage was being sunk at such a rate that it seemed only a question of months before the Allies would be forced to sue for peace. The Flanders flotilla was largely responsible for this holocaust of shipping. Passing to and fro through the Dover barrage with comparative impunity, its boats had put down hundreds of vessels great and small, and several congratulatory messages from Imperial headquarters had reached the senior submarine officer at Bruges, accompanied by a shoal of Iron Crosses. Some special celebration was clearly indicated. It took the form of a banquet at the officers' casino, which all U-boat officers present at the base, or likely to be present on the appointed date, were invited to attend. The guest of the evening was Admiral Schroeder, Commander-in-Chief of the German naval forces in Flanders, and, incidentally, the man responsible for the judicial murder of Captain Fryatt.

That a gathering of this nature offered a tempting objective for enemy attack, whether overt or otherwise, goes without saying. Had a salvo of aircraft bombs fallen into the casino that night Germany would have lost not only two or three distinguished admirals but a group of her very best submarine officers. There is reason for believing that arrangements for the banquet were communicated to the Allied intelligence service well in advance of the date. On the other hand, no whisper was ever heard of any action being taken by this service in connection with the event, and in such a case negative evidence is significant.

I have said that all U-boat officers in Bruges were invited to attend, but this needs qualification. There were, in fact, some exceptions. Half-a-dozen junior officers of the submarine branch were at that time in the bad books of the commodore on account of professional misdemeanours or social peccadilloes, and their names did not appear in the list of invitations. But they bore their ostracism with exemplary fortitude, having privately decided to hold a celebration of their own. And the little function they had in mind promised to be less formal and more diverting than the feast-making of the "brass hats." For whereas the casino banquet was a strictly "stag" affair, a number of pretty ladies had been invited to grace the unofficial supper-party given by the juniors.

It was held in a wine-cellar which experience had shown to be reasonably proof against air bombs. The menu presented no difficulties, for there was an abundance of delicacies from which to choose. Even when the food shortage in Germany was at its worst the naval forces in Flanders, and the submarine personnel in particular, lived on the fat of the land. The wisdom of this policy was demonstrated by the effects of the very different treatment meted out to the High Seas Fleet, where for more than a year before the Armistice the lower-deck was on a starvation diet.

Ordinarily, too, there was no lack of wines in the naval mess at Bruges. On this occasion, however, all the best vintages had been commandeered for the official banquet, and what remained was poor stuff. In this dilemma the junior officers had recourse to strategy. While some of their number created a diversion which kept the casino stewards occupied for half-an-hour, the rest quietly raided the wine store and returned in triumph with their booty: a dozen

of the best brands of champagne and two noble magnums of "the Widow," which were, no doubt, to have graced the Admiral's table, since they were gaily decked with black, white, and red ribbons.

Behold, then, the informal party at midnight, in full swing. It is very hot in the cellar. An electric fan battles vainly with the swirling clouds of smoke from a score of cigars and cigarettes. Lolling round the table, some in highly unconventional attitudes, are nine Ober-Leutnants and Leutnants zur See, each with his fair partner. The ladies are a mixed lot, mainly Flemings and Walloons, though there are two or three flaxen-haired Gretchens who have followed the fortunes of their flag over the Rhine. For these, life in Bruges is pleasant and profitable. True, the frequent air raids are a little trying, but there are compensations. For ladies who are, as it were, "on the strength" the food problem scarcely exists. And above all there is a constant succession of officers, young and middle-aged, who crave for feminine society and have well-lined pockets with which to indulge their fancy.

The submarine officers are special favourites. Life for them is too precarious to be taken seriously. So with almost pathetic zest they obey the injunction to eat, drink, and be merry. To-morrow some will certainly die, and for the rest it is only a matter of time. "*Also, die Gläser empor!* Mars is off duty. Homage to Bacchus and Venus. We're off to sea in the morning. *Auf Nimmerwiederssehen!*"

The floor is littered with empty wine-bottles. Only the two stately magnums remain. "*Nun, Carlchen, open them both and we'll drink a last toast,*" calls the chairman, a hard-bitten torpedo lieutenant whose career has been marred by over-devotion to Bacchus. A tall sub

risers on unsteady feet and grips the nearest magnum. The wire is tough and twisted, and when at length it is off the cork refuses to move. *Donnerwetter!* Sinewy fingers clutch and pull; the cork gives—and the cellar is blasted by a terrific explosion.

Some minutes later a crowd of soldiers and sailors stand gazing at the smoking ruins, for the whole house has collapsed. Hours afterwards a rescue party forces a way into the cellar. The walls are blackened, pocked with splinters, and splashed with blood. Mangled bodies lie amidst the wreckage. The whole place is a shambles. But from the further corner comes a faint moan. A young officer with a gaping rent in his scorched tunic is still alive, though terribly injured. He is the sole survivor of the party which was merry-making at midnight. Next day in hospital he is sufficiently revived to mutter a few sentences which provide a clue to the catastrophe.

“The magnum. It must have been a bomb! Look in the casino, for God’s sake! There are more of them there.”

This was enough. No time was lost in examining the wine store at the casino. All the ordinary bottles were found to be harmless, but the magnums of champagne were under grave suspicion. Two or three were taken out to the rifle range and fired at. They detonated with appalling violence. Twelve magnums in all were found to be bombs, each containing a heavy charge of high-explosive and an ingenious form of detonator. The explosion of one would probably have touched off others near by. Had this occurred, even in the large dining-room at the casino, it is doubtful if any of the occupants would have escaped death or mutilation.

In view of the tragedy in the wine-cellar the official

banquet was postponed, and when it did take place no magnums stood on the table. Exhaustive inquiries failed to discover how the "champagne bombs" had been smuggled into the casino, and the mystery was never solved.

CHAPTER III

FROM INFORMATION RECEIVED: SECRETS FROM THE DEEP

DAME FORTUNE did not always dispense her favours impartially in war-time. There were long periods when the fickle goddess seemed to shower them with lavish hands on those against whom we fought, and even to invoke the meteorological deities in support of her quondam protégés. Rain and mud for the Allies, dry ground and a sheltering mist for the Germans: these conditions occurred and recurred with monotonous regularity on the Western battle-fields. Yet to ignore the strokes of sheer good luck that did come our way would be base ingratitude. On the sea, at any rate, Fortune smiled upon us as often as not.

An outstanding example was the appearance of Count Spee's ships off Port Stanley, in the Falkland Islands, just fifteen hours after Admiral Sturdee had arrived there with his squadron, bent on avenging Coronel. No coincidence more dramatic than this is to be found in all the annals of warfare at sea. Other examples of good luck might be recalled, such as the proximity of the Australian convoy to the Cocos Islands when the *Emden* attacked the cable station there, thus bringing about the swift destruction of this mischievous raider by H.M.A.S. *Sydney*; and the recovery from the wrecked cruiser *Magdeburg* of a secret code-book, thanks to which we were able to decipher German naval signals for a period of many months.

Both sides profited at times by the finding of confidential documents in ships which had been sunk or

captured. In war every belligerent ship carries papers which would be invaluable to the enemy, and it goes without saying that commanding officers are strictly enjoined to see that such documents are thrown overboard or destroyed if for any reason it becomes necessary to abandon ship. To facilitate their sinking, code-books and volumes of confidential orders are bound in leaden covers. So far as is known, the *Magdeburg* was the only surface warship whose secret papers fell into enemy hands, though it is understood that some highly interesting documents were found in the *Ophelia*, the German "hospital ship" which was proved to have exercised the functions of a scouting cruiser, and was for that reason seized and condemned by the British Prize Court.

Where a submarine was concerned there were obvious difficulties in making away with confidential books or papers. They could not be dropped overboard if disaster befell the boat while she was submerged, and even when cruising on the surface she might be sunk by ram, gunfire, aircraft bomb, or torpedo before the officers had time to dispose of her papers. A variety of circumstances might, and in several cases actually did, prevent the destruction of documents in a submarine before she came into possession of the enemy.

In October 1915, the French submarine *Turquoise* entered the Dardanelles for the purpose of attacking Turko-German communications in the Sea of Marmora and thus emulating the brilliant exploits of British undersea craft in those waters. But the French boat had no luck. She ran aground and was captured intact. A German officer searching the prize came upon a paper which showed that the *Turquoise* was to have met a British submarine, *E 20*, some days later,

the rendezvous, date, and hour being recorded. The tryst was duly kept, but it was a German boat, *UB 14*, that kept it, and when *E 20* arrived she was greeted by a torpedo which sent her to the bottom with all on board except the commander and eight men. No recriminations were wasted over this tragic episode, which was accepted as one of the unlucky accidents of war.

Some two years later *E 20* was amply avenged. From papers taken out of a German submarine which had been depth-charged and promptly salvaged we learnt that two large U-cruisers were to meet off the Spanish coast on a certain date. As it happened there was just time to arrange a warm reception for them. The nearest British submarine received orders by wireless, and punctually at dawn on the appointed day she was at the meeting-place, only a few inches of her periscope showing above water.

Two hours later the first German U-cruiser hove in sight. As the sea was so calm and glassy that even the "feather" of a periscope could be seen at a great distance, the British submarine captain wisely decided to make sure of one victim; so the big U-cruiser was promptly abolished by a well-aimed torpedo. Hardly had the column of water that marked her grave subsided when two more German submarines were observed to be approaching, one from the north, the other from the south. But they had taken alarm at the explosion, for both dived at once and were not seen again. Had the weather conditions been more favourable for attack it is conceivable that the British boat would have achieved a triple kill.

Yet another discovery of secret papers led to the greatest haul of U-boats made during the whole war. It is an amazing story, now told for the first time in detail. In June 1918, a German submarine left

Heligoland to join the Flanders flotilla. Fresh from the builders' yard, *UB 450* was one of a very numerous group of medium-type boats which had been built under the 1917 programme.¹ Completed in the late spring of 1918, she was commissioned with a crew of four officers and thirty-one men. Displacing only 510 tons she was a handy little craft, if somewhat slow, and could make a crash dive in thirty seconds.

The voyage began at a time when the British counter-offensive was daily becoming more intense and effective. Save in the wastes of the Atlantic there was no longer any peace for the U-boat. Day and night in the narrow seas it was stalked by foes, both visible and unseen, and the luckless *UB 450* was destined to feel all the terrors of this relentless persecution. Already on her way to Flanders she narrowly escaped destruction by the bombs of two British seaplanes, which exploded about her as she plunged headlong to the dubious sanctuary of the depths.

On July 5th she left Zeebrugge on a raiding cruise in the North Sea, and almost at once her ordeal began. Two days out she was sighted by our patrols and heavily depth-charged. From then onward, according to the entries in her log, not a day passed without bringing an encounter with some hostile craft or other, each one punctuated by a blast of nerve-shattering depth-charges. On the 18th she torpedoed an oil-tanker and escaped with the deadly "water-bombs" detonating near by in salvoes, no less than twenty-six explosions being counted. Next day was to be her last.

UB 450, now off the Durham coast, sighted a convoy near Roker and dived to attack. Her first torpedo

¹ In deference to the feelings of the former commanding officer of this German submarine, I have used a fictitious designation for the boat. But she will be readily identified by students of the U-boat campaign.

invited the usual depth-charge retort, which this time was effective. A violent explosion near the bows buckled the diving rudders; the boat's head could not be kept down, and she broke surface near a destroyer, which rammed her at full speed. As the swirling waters closed over her a little motor launch raced up and neatly dropped two charges, which detonated almost against her hull. This was the death-stroke. Riven and torn, the dying submarine rose to the surface for a few seconds and then disappeared. She left a few survivors swimming in the water, among them the commanding officer himself.

Since the wreck lay in fairly shallow soundings, not too far from the coast, the Admiralty Salvage Section was set to work, several previous "finds" of great value having been made in the recesses of sunken U-boats. In the case of *UB 450* the salvors had a long and tedious task before the battered steel coffin was raised and towed into port. But their labours were richly rewarded. A log-book, signal codes, documents and charts, sodden and discoloured, were retrieved from the captain's room and forwarded to the Intelligence Division of the Admiralty. There, after being dried and chemically treated, they were subjected to the scrutiny of experts, who soon deciphered them all.

It was treasure trove with a vengeance. For once even the imperturbable I.D. chief, Admiral Sir Reginald Hall, evinced mild excitement. As laid before him the exhibits were as follows :

First, the *UB 450*'s log-book, with entries up to an hour before her destruction. This contained much useful information as to the effects, and defects, of our anti-submarine tactics as appraised by the enemy—who was in the best position to know—and details of newly-planted German minefields, nets, and the like,

all of which were at once transferred to our own war charts.

Secondly, sheets of drawings showing the silhouette appearance of every ship in the German navy, from the newest battleship to the latest submarine. Alterations in rig and upper-works were noted in the minutest detail. Armed with these drawings we could immediately identify any hostile craft, from the largest to the smallest, that might be met with at sea. Without loss of time copies of the silhouette sheets were circulated to the Grand Fleet, other naval commands, and the Royal Air Force—to the latter because aircraft had now become a powerful factor, not merely in the anti-submarine campaign but of our naval system as a whole.

Thirdly, and by far the most important exhibit of the collection, there was a large-scale chart of the home seas. On this were traced numerous red lines and marginal notes, the full significance of which took some time to penetrate. But at length the secret was solved. The commanding officer of *UB 450* appeared to have been on the friendliest terms with several U-boat "aces," for they had obviously done their best to direct him safely through the swarming perils of the narrow seas. Each of these veteran officers had a favourite track which he habitually followed when making for the Atlantic by the north-about route round Scotland, and each had drawn his chosen track in red ink on the chart for their comrade's guidance.

One track represented a wide détour to avoid our minefields and those areas in which patrols had been observed to be most vigilant. Another zigzagged continuously, deviating away from the patrolled areas by day and towards them at night. A third ran right through the danger zone without wavering, experience

having presumably convinced this particular officer that a straight course, whether above or below water, was safest in the end. A fourth was rather more devious, and subject to variation in circumstances duly explained. And so on.

Each track, clearly marked in red ink, had beneath it the number of the U-boat which regularly followed it. Nearly every track showed safe resting-places on the bed of the sea, the latitude and longitude of such "nests" being noted in every case. It was easy to imagine the prolonged discussions, the frank exchange of hard-won experience, and the expert knowledge of which this sea-stained chart was the fruit.

Three of the submarine captains whose routes were denoted on the chart had wrought much havoc to shipping; the others, if not quite so dangerous, were still formidable. Suppression of this group of undersea raiders would therefore bring the solution of the tonnage problem appreciably nearer.

So measures to that end were swiftly set in train. Very detailed orders reached our Northern mine-laying forces, the trawler patrols with their hydrophone units, the aircraft bases, and the A/S¹ destroyers—each with its thirty depth-charges neatly stacked on the quarter-deck. Of the number of mines expended in this particular operation there is no record, but it must have run into many hundreds. Across each red-lined track curtains of mines—mark H2, a very efficient type weighing 650 lb., which had just been introduced—were hung at irregular intervals and varying depths. Every resting-place noted as safe on the chart was transformed into an ambushade of high-explosives.

As soon as these snares were laid the regular "beats"

¹ In official naval terminology "A/S" denotes "anti-submarine."

covered by our surface sentinels were altered in such a way that a U-boat making a *détour* to avoid the areas hitherto most vigilantly watched would be almost certain to run into the thick of our patrols. When all was ready and the elaborate trap complete to the last detail, the I.D. officials sat back in hopeful expectation.

They did not have long to wait. Eight days after the last mine had been planted the first submarine was caught. There were no survivors, but by certain indications it was positively identified as one of the five enumerated on the chart. Another fortnight passed, and then two more U-boats came to grief in the trap within a few days of each other. From one of the wrecks a few survivors were picked up.

Then came a long interval, so prolonged as to suggest that the enemy had smelt a rat and was deliberately giving the old routes a wide berth. But still our patrols kept watch and ward over the mined runways, and at length their patience was rewarded by the destruction of the fourth and fifth submarines mentioned on the chart. Thus, within a comparatively short time after the salving of *UB 450*—eleven weeks to be precise—every one of the five submarines had been accounted for. In marking the chart for their friend's guidance the five captains had drafted their own death warrants!

It was to avert the possibility of similar disasters that both sides resorted to desperate measures for the recovery or destruction of secret papers whenever one of their submarines was in danger of capture. Two incidents of this kind may be cited. In August 1915, *E 15* (Lieut.-Commander T. S. Brodie), while passing through the Dardanelles, ran aground within point-blank range of the Turkish batteries. Under a murderous fire Commander Brodie tried to save his

boat by going full speed astern, but a shell hit the conning-tower and killed him instantly.

Orders were then given to abandon ship, but the surviving officers, Lieuts. Price and Fitzgerald, did not leave until they had destroyed every chart and document, this being done while shell after shell came smashing into the disabled vessel. Subsequently *E 15* was torpedoed and destroyed by a British picket-boat in a daring night attack, to prevent her from falling into the enemy's hands.

In 1916 another British submarine, *H 6*, ran ashore in misty weather on Schiermonnikoog, a Dutch island within easy reach of the German naval bases. She lay so hard and fast on the shoals that it was impossible to refloat her without extensive salvage operations, which the enemy would be certain to interrupt. So Captain (now Admiral) A. K. Waistell, who was at sea in the destroyer *Firedrake* superintending the work of the submarines under his command, despatched a motor-boat to take off the stranded boat's papers and her most highly-skilled ratings. This was accomplished at great risk, and the *H 6* was then reported to the Dutch authorities for internment. She was afterwards salvaged by them, and purchased for service in the Netherlands Navy.

All the later German U-boats were provided with a special receptacle in which books or papers could be quickly destroyed by fire or acid.

In the latter part of the war there was nothing our Intelligence Division did not know about the ways and wiles of the U-boats. This mass of information came to us from innumerable sources, the recovery of secret papers from sunken vessels being but one among the many. Sometimes we obtained vital facts from prisoners. These were rarely disposed to be com-

municative, and for the most part they held their tongues while in captivity; but from time to time we encountered a prisoner who from motives more or less obvious was quite ready to talk.

More than once German seamen, labouring under real or fancied grievances, would volunteer information which proved to be authentic and useful. It is but fair to add, however, that German naval prisoners as a body were as reticent and as discreet as we should wish our own people to be in a similar situation.

I find in my records only one instance of a German naval officer betraying his country's secrets while in captivity, and the circumstances surrounding this case serve to explain, if not to excuse, his conduct. Towards the end of the war it came to the knowledge of our Intelligence Division that German U-boats of the Flanders flotilla had some secret methods of finding their way through the shoals, minefields, and nets which obstructed the approaches to Zeebrugge and Ostend. By that time the channels had become so straitened by artificial obstacles, superadded to the natural difficulties already existing, that it seemed impossible for U-boats running submerged to thread them in safety; yet to our certain knowledge they were doing so. What, then, was the secret?

Scientists consulted by the Admiralty were able to hazard a shrewd guess, which was afterwards verified by definite news. The U-boats were navigated into and out of their bases by means of a "leader gear," the nature of which is best explained in an Admiralty expert's own words:

"An application of an electro-magnetic effect, this gear consists of a cable laid on the bottom of the sea along the course of a narrow, tortuous channel leading into a harbour or through a minefield. If an alter-

nating electric current be passed through such a cable it is possible by means of delicate devices installed in a ship to obtain either aural or visual indications of the presence of such a cable, and by these indications the ship can be guided in safety in fog or darkness at speeds as high as 20 knots, almost with as much precision as a tram-car by a trolley wire over a railway. Experiment has shown that it is a simple matter to apply this method in water of suitable depth for distances as great as fifty miles or longer." ¹

The use of "leader gear" by the Flanders U-boats was but one among several important disclosures made by the German officer in the circumstances I am about to relate. He had been picked up after a North Sea skirmish in which his ship was sunk, and when his identity became known it caused something of a stir at I.D. headquarters. For this particular officer was a man whom a certain Allied Government "wanted" very badly indeed. A year or two previously he had committed an act of appalling barbarity on some of their nationals, and his name was the first on their black list.

The prisoner, well aware of his notoriety, was by no means ashamed of it; very much the reverse, indeed. In appearance and manner a typical Prussian of the type so faithfully depicted in *Punch's* war cartoons, his arrogance knew no bounds, and from any save British captors his provocative behaviour would infallibly have gained him rough treatment. As it was, his studied unpleasantness met with nothing but silent contempt.

Like most bullies he was a braggart, though the achievements he claimed bore only a shadowy re-

¹ Professor J. C. McLennan, O.B.E., F.R.S., Scientific Adviser to the Admiralty, in an address at Newcastle-on-Tyne.

semblance to the facts as known to I.D. officials. On one occasion he was palpably discomfited when, having given an absurdly exaggerated account of something he had done in the Mediterranean, a British officer present quietly related the true version of the incident.

"How on earth could you know that?" blurted out the German.

"It's our business to know these things," was the answer. "And by the way, just as a matter of curiosity, which of your brothers married Gertrud Lehmann? Was it Otto or Wolfgang?"

"Otto, of course; Wölfchen never had a chance—but, what the devil! Who has been blabbing about my family affairs?"

He broke off, staring blankly at his interlocutor, his bull neck crimsoning with amazement and indignation; but he was not enlightened further. It was perfectly true that the I.D. had a very complete dossier of every German U-boat commander who sailed the seas. Such information enabled us to forecast with reasonable assurance the conduct of any of these men in given circumstances, and certain of our anti-submarine tactics were largely based upon this psychological factor.

But while the prisoner in question talked at large on many subjects, he would answer no questions about German naval matters, and, needless to say, his reticence on this point was respected. In due course our Allied friends in another country, learning of our capture, forwarded an urgent request for his extradition. They freely acknowledged their intention of putting him on trial for his outrage against their nationals, and it would unquestionably have gone hard with him had he been surrendered into their custody.

This request placed our authorities in something of

a dilemma. On the one hand, they did not wish to disoblige a faithful ally; on the other, they were reluctant to deliver up a prisoner of war to what might well mean death, the more so since the case against him was damning.

Before any decision had been reached the news that his extradition had been demanded was broken to the prisoner late one night by two of our Intelligence officers. It proved to be an unpleasant task, for his nerve, badly strained by what he had endured in action, ~~failed~~ him in this crisis, and he broke down utterly. He implored the officers to save him—"If you hand me over to those devils they will shoot me like a dog!"—and promised in return for his life to tell them everything they wanted to know. They, of course, could give no assurance, but the offer was communicated to the proper quarter, and after some deliberation the prisoner was notified that he would not be sent out of this country provided he gave the information we were seeking.

When the interrogation took place he was better than his word, answering every question without hesitation, and volunteering disclosures of first-class importance. The news thus obtained did much to amplify and bring up to date our German naval records, with special reference to U-boat organisation. In some cases our newly-acquired intelligence enabled us to take counter-measures which must have come as a stunning surprise to the enemy.

Among the facts divulged by the prisoner was the adoption of the "leader gear" for submarine navigation off the Flanders coast. Precisely what action the I.D. authorities took in this particular matter has never been revealed. There is, however, reason to believe that a week or so later the Zeebrugge-Ostend leader

cables suddenly ceased to function, with the result that certain U-boats homeward bound lost their bearings at a critical moment, blundered into a minefield or nets, and were no more seen.

It was from other naval prisoners that we first got wind of a German plan for striking a blow at the Grand Fleet. This plan, it is true, was eventually dropped to avoid interference with the stupendous programme of U-boat construction which had supervened, but it deserves to be rescued from oblivion for historical reasons and because of the intriguing possibilities it suggested.

Briefly, the idea was to build a squadron of unsinkable battleships to act as a battering-ram for the High Seas Fleet. They were to be low-lying, broad-beamed vessels of moderate speed, plated with armour thicker than that of any existing ship and impervious to the heaviest projectiles except at point-blank range. By reducing machinery spaces and berthing accommodation to a minimum the hull could be made proof against torpedoes or mines. Ten or twelve 15-in. guns were to form the main armament of each of these super-monitors, for such in effect they were meant to be. They had a very limited cruising radius and living quarters were of the most primitive description, while equipment was restricted to that actually required for navigating or battle purposes. Four of these remarkable ships were to constitute an "Iron Division" which would lead the High Seas Fleet into action against the Grand Fleet.

It was their mission to steam straight for the enemy and to engage simultaneously with all guns at the closest range possible. During the advance their abnormally stout protection would save them from disabling punishment, and at comparatively short

range their powerful armament was expected to do terrible execution among the British battleships, which carried armour of only moderate strength.

Not until the "Iron Division" had taken heavy toll of the enemy was the main body of the High Seas Fleet to join battle. If necessary the four monitors were to sacrifice themselves, since they were designed for one specific purpose alone, and once this was accomplished they could well be dispensed with. Unless the Grand Fleet chose to avoid action and let ~~itself~~ be driven off the field—which was considered out of the question—it would have to stand up to the onslaught of the "Iron Division," each unit of which was judged to be the equal of two British battleships in all-round fighting power.

Conceivably the sudden intervention of this Division might have had something of the moral and material effect of the first British tanks in France. That, no doubt, is what the Germans anticipated; but from the meagre details of the design which have survived it is questionable whether they would have proved as invulnerable in action as they appeared to be on paper. No ship, however strongly plated, could endure for long the concentrated salvoes of heavy naval guns at close range. Furthermore, the Grand Fleet's possession of the speed gauge would have enabled it to open the range at will, without necessarily vacating the battle-field, and in that event the special tactics for which the "Iron Division" was designed could not have come into play.

These considerations were probably responsible in part for the ultimate shelving of the plan. The four super-monitors were ordered, and contracts placed for their machinery and armament, but the keels were never actually laid. Instead, all heavy ship construc-

tion was virtually suspended in the late summer of 1916 and all shipyard resources were concentrated on the production of submarines.

So the "Iron Division" never ploughed the North Sea, and German dreams of mail-clad mastodons breaking the British line in classic style, throwing it into confusion and delivering its shattered squadrons to the rolling broadsides of the High Seas Fleet, were not fulfilled.

Perhaps it was as well for Germany that the plan came to naught, for success would have largely depended on the maintenance of secrecy up to the last moment, whereas in truth—like so many other "secret" German war plans—it came to our ears while yet in an early stage of development.

CHAPTER IV

TRAGEDIES OF JUTLAND: *BLACK PRINCE* AND *WIESBADEN*

At the Battle of Jutland modern naval warfare was seen in all its majesty and terror. For twelve hours, intermittently, the two mightiest fleets in the world were locked in combat—two hundred and fifty vessels of every type massed within a comparatively small area of the North Sea, steaming for the most part at high speed, with hundreds of funnels belching smoke amidst the incessant flash and thunder of countless guns. The concentration of artillery in this action exceeded that of the greatest land battles of the war. There were nearly six hundred guns of the heaviest calibres, from 11 in. to 15 in., besides innumerable pieces of smaller bore.

Vessels far away from the scene of action felt the motion of the swell set up by the passage of so many keels furrowing the water at express speed. Dwellers on the coast of Jutland and in quiet Danish hamlets inland heard the mutter of gunfire from seaward which went on all that afternoon and evening. The short Northern night was disturbed by flashes in the sky and spasmodic outbursts of drum-fire, culminating at times in a louder and more distinct reverberation that denoted the fiery end of some great ship.

Not until several years had elapsed was it possible to form a reasonably clear picture of this titanic naval combat. Gradually, however, the patient work of

historians has sifted, arranged, and co-ordinated the bewildering mass of information available, until to-day the vast panorama of Jutland may be viewed as an orderly sequence of events, each dovetailing into the other with scarcely a perceptible break. There are, it is true, certain episodes of which the details remain obscure, and while their elucidation would in no way modify our perspective of the battle as a whole, the very mystery that surrounds them is a constant incentive to inquiry.

In the course of the battle six large ships were blotted out with appalling suddenness. The instantaneous destruction of so many vessels was a complete surprise to naval experts, who had never imagined that modern capital ships, with their great tonnage, massive protection, and ingenious safety devices, would succumb so abruptly to the punishment they were built to endure. Why the British fleet should have suffered so much more heavily than the German in this respect has never been satisfactorily explained. The question has been exhaustively debated without leading to definitive conclusions. Only the facts are beyond dispute.

The *Queen Mary*, a battle cruiser of nearly 27,000 tons, blew up and disappeared under a rain of shells apparently less severe than that which beat upon her sister, the *Lion*, without causing mortal injury. Eyewitnesses agree that the *Tiger* and the *Princess Royal* were hit more often than the *Indefatigable*, yet she went up in flame and smoke while they continued to fight with unimpaired vigour. There is little doubt that the *Queen Mary*, the *Invincible*, and the *Defence* were all blown up as the result of hits on their turrets, the flash of the shell igniting ammunition and causing magazines to explode. As for the *Indefatigable*, it seems to be

agreed that projectiles pierced her armour and exploded in the very vitals of the ship. But other vessels, both British and German, endured an even heavier cannonade without blowing up.

Terrible as were these disasters, I do not think any one of them approaches in horror or poignancy the circumstances in which the *Black Prince* met her doom. The antecedents of this midnight tragedy have never been fully established, nor, for some reason, is the grim story told at any length in the histories of Jutland. But in the German official record there are some details which bring the *dénouement* vividly before our eyes.

H.M.S. *Black Prince*, an armoured cruiser of 13,550 tons, was launched at the Thames Ironworks on November 8, 1904. Upon her completion she was thrown open for inspection, and thousands of Londoners flocked to visit the ship that had been cradled in their own river. Neither she nor her sister, the *Duke of Edinburgh*, met with expert approval. They suffered from low freeboard, and the 6-in. guns of the secondary armament were placed so near the water-line as to be unworkable even in moderate weather.

On the outbreak of war the *Black Prince* was with the Mediterranean Fleet. After the unsuccessful pursuit of the *Goeben* and *Breslau* she was ordered to the Red Sea for patrol duty. Subsequently she joined the Grand Fleet as a unit of the First Cruiser Squadron, her consorts being the *Defence* (flagship of Rear-Admiral Sir Robert Arbuthnot), *Warrior*, and *Duke of Edinburgh*. This squadron was based at Invergordon with the Second Battle Squadron. On the eve of Jutland, in accordance with orders, the combined force sailed for a position off the Skagerrak, where at 2 p.m. on May 31 it was to meet the main body of the Grand Fleet.

The *Black Prince*, commanded by Captain T. P.

Bonham, R.N., had a complement of 37 officers and 820 men. Admiral Arbuthnot had worked his squadron up to a high state of efficiency, and although its ships were of an antiquated type they were prepared to give a good account of themselves. Meanwhile the main battle squadrons and the Battle Cruiser Fleet had sailed from Scapa and Rosyth respectively, and, to quote the official historian, "through the short summer night the three sections of the fleet steamed for their rendezvous with nothing to encourage them to believe that what had set them in motion was anything more than one of the many alarms which had so often ended in disappointment."

But this time the Grand Fleet was to be given its chance. At 2.20 p.m. on May 31 the *Galatea*, on the eastern wing of Admiral Beatty's cruiser screen, observed two German destroyers to the eastward and promptly signalled "Enemy in sight," opening fire a few minutes afterwards. The Battle of Jutland had begun.

It is unnecessary to repeat here the well-known story of the battle cruiser duel that now developed and raged with unexampled fury, or to detail the other manœuvres which preceded the main action between the rival battle fleets. Suffice it to say that at 5.33 p.m. the *Black Prince*, being then on the starboard wing of the First Cruiser Squadron, sighted the *Falmouth*, Admiral Beatty's foremost cruiser. Visual contact was thus made between the two sections of the Grand Fleet. A series of events now ensued which have a direct bearing on the fate of the *Black Prince*.

Since 4 p.m. the Third Battle Cruiser Squadron (*Invincible*, flagship of Rear-Admiral the Hon. H. L. A. Hood, with *Inflexible* and *Indomitable*) and its attached cruisers, *Chester* and *Canterbury*, had been steaming at

speed to reinforce Admiral Beatty. At 5.30 the *Chester*, hearing gunfire to the south-westward, turned in that direction to investigate. Suddenly, out of the mist burst four German cruisers, *Frankfurt*, *Wiesbaden*, *Pillau*, and *Elbing*, comprising the 2nd Scouting Group. Opening rapid fire on the *Chester* they smothered her in bursting shell. In the face of such overpowering odds there was nothing for it but to retreat. With three of her guns out of action and decks littered with dead and wounded men she turned away, hotly pursued by the German cruisers, which were, no doubt, confident of making a kill. But they were to be baulked of their prey.

Rear-Admiral Hood, hearing the thunder of this engagement, turned his battle cruisers towards it and came on at full speed. At 5.55 the *Chester* was taking shelter under his lee, and at the same moment his big guns opened on the German cruisers. Surprised in their turn they broke off the chase and ran for safety, but before they were clear of the danger zone salvoes of 12-in. shell pitched among them. The *Pillau* was badly hit but contrived to keep her station, though at reduced speed. Less fortunate was the *Wiesbaden*. Crippled by a direct hit in the engine-room, her speed was reduced to little more than steerage way, and throwing out smoke boxes to screen herself she limped after her consorts. Had they stayed by her their own fate would have been sealed.

It was at this juncture that Admiral Arbuthnot's flagship, the *Defence*, came on the scene. The *Warrior* was following in his wake, but the other ships of the squadron, *Duke of Edinburgh* and *Black Prince*, were several miles further to the southward. Sighting the *Wiesbaden* through a rift in the smoke screen he pressed forward to engage her. The *Defence* opened fire at

6.5 p.m. Hit by the second salvo the *Wiesbaden* was brought to a standstill, and for the next few minutes she was mercilessly hammered by the *Defence* and *Warrior*. Better for her had she been sunk there and then. As it was she lay motionless in what was soon to become the no-man's-land between the contending battle fleets, and dreadful was the fate reserved for her, as I shall presently show.

Meanwhile, in his eagerness to finish off the *Wiesbaden*, Admiral Arbuthnot had closed the range to under 6,000 yards. He was turning to bring his full broadside to bear when a more formidable enemy suddenly loomed through the mist. It was the van of the German battle fleet. In less than a minute the *Defence* was under a murderous fire from a score of heavy guns, and hits rained upon her. Flames burst through her quarter-deck, followed by a blinding flash from the forward turret. The next instant she blew up with a crash that seemed momentarily to silence the din of battle.

The *Warrior*, close astern, was also hit again and again. Her end seemed only a question of minutes when help came from an unexpected quarter. At this time the Fifth Battle Squadron (four *Queen Elizabeths*) was heavily engaged with the leading German battle-ships, and the giant *Warspite*, her helm jammed by too sudden a turn at full speed, had got out of control. Executing a complete circle she came involuntarily between the *Warrior* and the enemy, and by drawing the latter's fire undoubtedly saved the stricken cruiser from summary destruction. Taking advantage of this respite the latter withdrew to the westward. Hours later she became waterlogged and had to be abandoned, but not before her crew had been taken off by the aircraft-carrier *Engadine*.

As we have seen, neither the *Duke of Edinburgh* nor the *Black Prince* was with Admiral Arbuthnot when his flagship perished at 6.19. In his report on the action the *Duke of Edinburgh's* commanding officer wrote :

"At 5.42 p.m. I altered course to port to close *Defence* by signal and increased to full speed; at the same time I observed that *Black Prince* had turned about twelve points to port. This was the last I saw of *Black Prince*, but at 8.56 p.m. intercepted a signal from her, 'Urgent, submarine on port hand, Lat. 56° 55' N., Long. 6° 11' E. 2048.'"

The *Duke of Edinburgh* does not appear to have been under fire at all; at any rate she was not hit. But what of the *Black Prince*? From her position at the moment when the *Defence* was sunk it seems improbable that the German heavy ships were then firing at her. Shortly afterwards, however, when the British battle fleet had deployed, she must have been visible to the enemy's van, as the *Warrior* sighted her four miles astern of the battle fleet. The official records offer no enlightenment. The Admiralty "Narrative" merely says, "The movements of the *Black Prince* are obscure during this phase of the action," and neither that publication nor the official history, *Naval Operations*, refers to her again until her destruction soon after midnight.

That the cruiser completely lost touch with her own fleet at or about 6 p.m. is plain enough, but as to why she lost touch and what she was doing during the next six hours there is not a scrap of evidence from any quarter. Nor, except for a wireless signal made at 8.51, reporting a submarine, did she send any message.

Now the *Black Prince* was a fairly fast ship, good for at least 22 knots under ordinary conditions, and it is practically certain that had all been well with her she

would have caught up with the main fleet, or some section of it, an hour or two after the deployment. That she failed to do so is circumstantial evidence of a machinery defect, the inference being that she had come under the fire of the German battle fleet. It is perhaps significant that Admiral Scheer in his first despatch written after the action claimed to have sunk the *Defence* and *Black Prince* and heavily damaged the *Warrior*. He may easily have confused the *Warrior* with the *Black Prince*—they were very similar in appearance—and as he had last seen the former obviously disabled and still in a tornado of fire his claim to have sunk her was not unreasonable.

Was it, then, the *Black Prince* which was "heavily damaged" in this encounter? The German official historian hazards the following surmise: "Already in the day action this armoured cruiser had lost all contact with the First and Second Cruiser Squadrons, and perhaps owing to her speed having fallen off through hits she dropped far astern of the battle fleet, and so found herself after nightfall between the British destroyer flotillas." This may be mere guesswork, but it does afford a plausible explanation of the mystery.

We can picture the lost cruiser, perhaps half-crippled by a shell in her boilers, limping painfully after the fleet that was fast receding in the mist and smoke which lay like a pall over the whole area of battle. She must have seen the almost continuous gun flashes that flickered along the horizon like summer lightning, and heard the rolling broadsides. From time to time she may even have caught a glimpse of the battling squadrons; but strive as she might she could not catch up with them.

And when night had closed down on the sea she still pursued her solitary course, "listening-in"—if her

wireless were still functioning—to the stream of signals which flashed through the ether and from them trying to determine the location of the Grand Fleet. That she was steering in approximately the right direction we know from the position in which eventually she was sighted by the enemy. Hour after hour she must have been groping her way through the dark waters, showing no light save a shaded lamp over the stern; the captain and other officers on the compass platform, peering into the night; guns' crews at their stations in turret and battery, and extra look-outs posted on deck and aloft.

Hour after hour passes without incident; then, shortly before nine o'clock, one of the port side look-outs sees a low-lying object which is presumed to be a submarine. Course is promptly altered to avoid the supposed menace, and perhaps there is a short burst of fire from the secondary armament. But it is practically certain that no submarine, friendly or hostile, was in the vicinity at this time. Did the *Black Prince* sight a destroyer, or perchance some drifting wreckage from the battle zone? We only know that her wireless signal reporting the "submarine," and taken in by several of the Grand Fleet ships, was the last word that ever came from the missing cruiser.

Midnight was now at hand. The High Seas Fleet was in full retreat, Admiral Scheer having no mind to try conclusions again with the Grand Fleet after the rough handling he had received during the short but sharp daylight action. He was steering south-west for the Horns Reef, and unknown to either side his vanguard at midnight was only three to four miles distant from the rear of the British line. From 10.15 p.m. onward the German squadrons were repeatedly attacked by our destroyers of the 4th, 9th, 10th, 11th,

12th and 13th Flotillas. In the hottest of these actions (at 11.30) the 4th Flotilla lost half its units sunk or disabled.

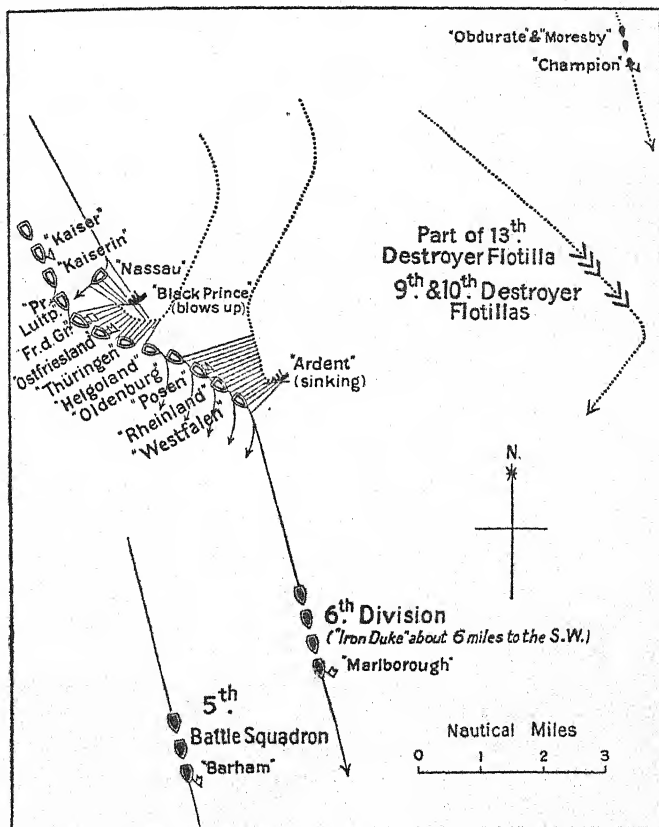
Probably the gun flashes, fires, and explosions which accompanied this mêlée were observed from the *Black Prince*, which must then have been steaming almost parallel with, but some five miles to eastward of, the German fleet, since she appears to have altered course and steered towards the scene. A few minutes after midnight the six remaining destroyers of the 4th Flotilla were again in contact with the leading German battleships.

"These at once opened fire, sinking the *Fortune* and hitting the *Porpoise* in the after boiler-room. The latter, screened by the steam and the smoke of the sinking *Fortune*, was able to make her escape slowly to the northward. . . . After retiring to the eastward the *Ardent* resumed a southerly course, and, converging on the enemy's south-easterly course, suddenly ran right into them again. She at once fired a torpedo, but as it left the tube the two leading ships opened a devastating fire and quickly reduced her to a wreck. After firing for about five minutes they ceased fire and switched off searchlights. The next squadron opened fire at point-blank range, the survivors took to the water, and the *Ardent* sank with colours flying."¹

Almost at the moment when the *Ardent* dashed gallantly into action for the last time the *Black Prince*, three miles to the north-east, was steaming straight into the jaws of destruction. At midnight she must have become aware of a line of great ships right ahead, and, mistaking them for friends, pressed forward "to make her number." What followed is vividly described in the German official history:

¹ Admiralty Narrative of the Battle of Jutland.

"Never was mistake more terribly expiated. The German van was still beating off the third attack of the 4th Destroyer Flotilla when, shortly after midnight,



The parallel lines represent the fire concentration of German battle-ships against the *Black Prince* and the *Ardent*.

the *Nassau*, which had fallen out of the line and was now some distance astern on the port hand, suddenly sighted ahead a ship with four funnels. The vessel was also seen by the *Thüringen* at the same moment. On

being challenged the stranger did not reply, but turned sharply away. In the beams of the German search-lights she stood revealed as a British armoured cruiser, barely a thousand yards away.

"The *Thüringen* at once opened with all guns, and at this short range practically all the ten heavy and fifty-one medium-calibre projectiles she fired found the mark. The British cruiser, still turning under helm, was raked fore and aft by the torrent of shell, but her own guns remained dumb. Flames soon shot up from her as high as the masthead. At 12.7 a.m. the *Ostfriesland* also opened fire, quickly followed by the *Nassau*, and then by the *Friedrich der Grosse* (Admiral Scheer's flagship)." ¹

The unfortunate cruiser was now under the concentrated fire of four Dreadnoughts, but mercifully her ordeal was a brief one. A blazing mass of wreckage, she drifted slowly down the German line. She was on fire alow and aloft; the hull seemed to be literally glowing from the heat of internal fires, and every few seconds exploding ammunition sent up cascades of golden sparks. Then the darkness was split by a vast sheet of flame as the main magazines went up, and the tormented ship sank with all hands. This was at 12.14 a.m.

The explosion must have been seen by the rear ships of the Grand Fleet, as it certainly was from several of our destroyers, who naturally assumed that an enemy ship had blown up. They did not recognise it as the funeral pyre of a British cruiser and her gallant ship's company.

No great effort of the imagination is needed to reconstruct the scene in the *Black Prince* just before the catastrophe. For at least an hour the twinkling flashes to the westward and the muffled roar of gunfire must

¹ German official history *Nordsee*, Vol. V.

have been visible and audible from her bridge. What is happening over yonder? Have the two great fleets stumbled upon each other in the darkness and closed in a death grapple, or are the German destroyers—the much-vaunted “black arm” which hitherto had signally failed to make good its boasts—hurling themselves against our battle squadrons? In any case there is hard fighting afoot, and it behoves every straggler to make for the sound of the guns.

So the helm is put over to port and the cruiser steams on her new course at the best speed of which her engines are capable. The blaze and roar of the fighting ahead die away, and there is an interval of comparative silence. But not for long. Searchlights again stab the night, and another frenzied outburst of gunfire echoes across the water. A traversing beam discloses for a second a line of huge grey shapes barely a mile ahead. Dreadnoughts! Surely they must be British.

But what is that? Some ship is flashing a challenge unintelligible to anyone on the cruiser's bridge. “By God, they're German! Hard-a-starboard!” It is too late. Almost before the ship begins to answer her helm she is focused in the blinding rays of a dozen searchlights. Then a full broadside crashes out from the nearest Dreadnought and the *Black Prince* is instantly transformed into a spouting volcano as the shells rend her vitals. Bridge and control positions are blotted out before a single order can be passed to the guns. Either through direct hits or cordite fires the whole armament on the engaged side is put out of action immediately. The engine-room has been wrecked by the first salvo. In the space of seconds a ship of nearly 14,000 tons is silenced, disabled, shot to pieces.

At this short range the stout armour on sides and

decks is powerless to resist the impact of the shells. They smash through the ship from end to end, tearing great holes on the water-line, opening the seams below, starting fires wherever there is anything to burn. Fed by cordite the conflagration is so fierce that the whole fabric of the ship becomes incandescent. Then the magazines explode, and with decks ripped open and bottom blown out the cruiser sinks like a stone.

No wonder there are no survivors. The first discharge must have swept away every soul on deck, and nowhere below was there refuge from the shells. The life-saving rafts would be splintered to matchwood or blown bodily into the sea. Perhaps a handful of men contrived to gain the deck and jump overboard before the last great explosion. We shall never know. Next morning, when the Grand Fleet was sweeping over the battle area of the previous night, a lifebuoy from the *Black Prince* was seen floating amidst a mass of charred wreckage. And that was all. A lonely ship had passed in the night, leaving this flotsam to mark her resting-place.

This nocturnal tragedy had its counterpart, in some respects more terrible because more protracted. I have told how the German cruiser *Wiesbaden*, after being crippled by the fire of Admiral Hood's battle cruisers, was further hammered by the *Defence* and *Warrior* and thereafter drifted helplessly between the contending battle fleets. For the best part of the next hour she served as a target for numerous British battleships, cruisers, and destroyers, which gave her their salvoes as they passed. The Admiralty "Narrative" names ten battleships, all of which bombarded this hapless cruiser, and adds: "Some thirteen ships fired about fifty salvoes at her, and the *Onslow* fired a torpedo, which very possibly hit."

How she survived this terrific punishment above and below water is a complete mystery. Still more astonishing is the fact—accepted as a probability in the official British records—that half-an-hour later she discharged a torpedo which struck the *Marlborough*, the only British battleship to be torpedoed during the whole action.

Both the Admiralty "Narrative" and the official history, *Naval Operations*, state that the *Wiesbaden* sank at about 7 p.m. To quote the last-named: "As for the ill-fated *Wiesbaden*, her gallant struggle was near its inevitable end. Being the only enemy ship now visible (6.45 p.m.), she came under a heavier fire than ever, and some ten minutes later the flames with which she had been struggling were quenched beneath the sea."

On this point, however, both these British authorities are in error. The *Wiesbaden* remained afloat for the greater part of the night, and did not founder until some time between 2.30 and 3 o'clock on the following morning—nearly nine hours after she had been battered out of recognition by the broadsides of the Grand Fleet.¹

The full horror of the ordeal this ship suffered would never have become known but for the almost super-human endurance of Leading Stoker Hugo Zenne, the sole survivor out of a ship's company of 570 officers and men. This man was picked up after having been in the water for at least forty hours. He had seen his ship reduced to a mass of smouldering wreckage by incessant shell fire, and most of his officers and messmates laid low. For eight hours the *Wiesbaden* had drifted helplessly, gradually sinking deeper in the water, but seemingly reluctant to take the last plunge that would have put a period to her long-drawn-out agony.

¹ German official history: *Nordsee*, Vol. V.

During those awful hours Zenne had made a tour of the ship above and below deck to determine the extent of the damage. He penetrated to every compartment that was not waterlogged, memorising everything he saw down to the smallest detail. It is entirely to his courage, coolness, and powers of observation that we are indebted for our knowledge of the *Wiesbaden's* last hours.

To me this humble German stoker is one of the outstanding heroes of the Battle of Jutland. Those who would read his story in full may do so in the pages of a German publication, *Auf See Unbesiegt*, where it is set down in his own words. Here I can give only the concluding passages.

Towards 2 a.m. on May 1st it was clear that the *Wiesbaden's* end was at hand. In the whole ship only about thirty men were left alive, and many of these were wounded. "Life rafts had already been launched over the stern. It was already growing light. A cruiser and a four-funnelled destroyer came in sight but took no notice of us. The ship heeled over more and more, and even as we were taking to the rafts the *Wiesbaden*, her flag still flying, suddenly but quietly disappeared.

"With about ten other men I clung to one of the rafts. I felt ill for a time, but soon recovered. Gradually, one by one, my comrades became exhausted, relaxed their hold, and sank, until at length only three of us were left. We then climbed right on to the raft, but it promptly capsized, throwing us into the water; and one of my comrades never came up again. In the course of that day the raft turned over from twenty to thirty times. For a long time another raft with three men on it remained in sight. As evening fell we saw a steamer a long way off. That night it blew a gale and rained, and our raft again capsized many times:

As dawn broke we saw a cruiser and several torpedo-boats, and between 9 and 10 a.m. three steamers, but all at a great distance.

"At midday the sun broke through the clouds. As evening approached a steamer came somewhat nearer, but as we were signalling to her the raft turned over again. This time my sole companion, a stoker, could not recover his hold. I tried to save him, but only seized his cap. I could give him no further help. Now that I was alone things became still worse, as the raft kept on capsizing. Finally, I stretched myself full length upon it.

"Late in the evening (May 2nd) a steamer came quite close. I waved to her, she saw me, and made efforts to rescue me by throwing a line. At the third attempt I managed to clutch the rope and was hoisted on board. She was the Norwegian steamer *Willy*, from Drammen. They gave me dry clothes and whisky, and tucked me up in warm blankets on the sofa in the captain's cabin. I then fell into a deep sleep."

A plain tale indeed, whose bald phrases scarcely do more than hint at the horror behind it all. A day or so later Zenne was landed in Norway, where he promptly communicated to a German official his marvellously detailed report on the damage sustained by the *Wiesbaden* and the circumstances of her end. That this light cruiser of little more than 5,000 tons should have kept afloat for eight hours after her hull had been blasted and riddled by heavy shell and hit by one or more torpedoes is not the least of the many unsolved mysteries of Jutland.

CHAPTER V

GUY FAWKES AFLOAT: WARSHIP EXPLOSION MYSTERIES

DESPITE the efforts of romanticists to picture it as such, war is not, and never was, an affair of kid gloves and lavender water. It is true that in theory there are certain rules for the conduct of hostilities which the civilised nations have agreed to respect, but in practice a hard-pressed belligerent is irresistibly tempted to ignore such rules if by so doing he can gain some marked advantage.

During the Great War international law was openly and repeatedly flouted by the Central Powers—which is not to say that it was consistently observed by their enemies. Precedents were thus established for illegal practices ashore and afloat which future generations may have bitter cause to rue. By the Germans the policy of intimidation, or “frightfulness,” was carried to extreme lengths, until they made the belated discovery that they were wielding a two-edged weapon, which could be, and eventually was, turned against themselves with dire effect.

Apart from the open clash of armies and fleets, each side endeavoured to inflict damage on the other by less overt methods. When these were effectual the injured party was always ready to cry “foul play!”—an attitude which merely betrayed a deficient sense of proportion. In war it is as legitimate to plant a bomb secretly in the magazine of a hostile battleship lying in harbour as to attack her with gunfire or torpedo at sea, and those

who wax indignant at the notion of such a "treacherous act" are illogical, to use no stronger term.

Had the opportunity presented itself we should have destroyed Germany's warships by hidden bombs with as little compunction as she would have blown up ours by similar means. There were, indeed, mutual attempts to sabotage naval material. While the precise degree of success which attended them is never likely to be known, they were undoubtedly responsible for heavy losses, as the following pages will show. When a belligerent warship is destroyed by explosion in circumstances which exclude the presumption of direct enemy attack, it is natural to ascribe the disaster to treachery—using the word for convenience without endorsing its literal implication.


In 1898 the United States declared war on Spain primarily because the latter was suspected of having blown up the American cruiser *Maine* in Havana harbour. That suspicion was never confirmed on evidence satisfactory to unbiased observers, who to this day prefer to accept one of two hypotheses: that the ship was destroyed by the spontaneous ignition of her ammunition, or alternatively by explosives placed in position by Cuban rebels or sympathisers for the purpose of inflaming American opinion against their Spanish oppressors.

Those who favour the first theory point to the numerous warship explosions, unquestionably due to defective ammunition, which occurred in later years, e.g. the Japanese battleship *Mikasa* in 1905 and the cruiser *Mutsushima* in 1908; the Brazilian ironclad *Aquidaban* in 1906; the French battleships *Iéna* and *Liberté* in 1907 and 1911. Besides these major disasters there were many less serious accidents, all traceable to faulty powder or shell. After the destruction of the

Liberté, samples of powder taken from the magazines of other French ships were tested and found to be in a highly dangerous condition. This was the notorious "Poudre B," which had a tendency to deteriorate very rapidly and thus become a terrible menace to any ship that carried it. It was discarded after the *Liberté* inquiry, and many hundreds of tons were thrown into the sea.

It is desirable to bear these facts in mind when considering the series of mysterious explosions which occurred in Allied fighting ships during the war. That several were caused by enemy agents is now known positively; in certain other cases hostile action was strongly suspected without being definitely established. The extraordinary circumstance is not that ships were lost through so-called treachery, but that their number was so small. There were obviously many opportunities of striking these furtive but all the more deadly blows, and that the mechanical difficulties were no hindrance to bold and resolute spirits is sufficiently proved by the Austrian record of success in this sphere.

When Italy declared war on Austria-Hungary in April 1915, the latter proceeded to organise a systematic campaign of sabotage behind the Italian lines. Detailed plans to this end were submitted to the Austrian naval command by a man named Luigi Fiedler, who was clearly a genius in his own particular line. After some years of service in the Austro-Hungarian navy he had settled in Vienna as an engineer, but he was also a highly-skilled chemist. Like so many subjects of the old Dual Monarchy who hailed from Trieste and Northern Dalmatia, he had Italian blood in his veins, and spoke the language with the fluency of a native. Yet Italy had no foe more bitter, more implacable, or more formidable.



Fiedler's scheme was essentially simple. He proposed to enlist a number of men who, like himself, could readily pass as Italians, and to install them in Italian dockyards, coaling stations, and other naval establishments. They would be furnished with bombs disguised as harmless objects, and whenever a chance occurred these were to be planted where they were likely to do the maximum amount of mischief, preferably in warships or ammunition magazines ashore.

He himself designed the bombs, which were made under his supervision at the Pola arsenal. So cleverly were they camouflaged that only the closest inspection would reveal their true character. Some resembled lumps of coal in shape, colour, and weight, but inside the steel shell was a charge of ammonal or some other high-explosive, capable of being detonated by a simple but effective clockwork time-fuse. Other bombs were made in the form of oil-drums, barrels of paint, and tinned foods. The largest types contained nearly a hundredweight of ammonal, the smallest only a pound or two of the same substance.

From the Austrian Intelligence Service Fiedler obtained detailed diagrams of all the more important Italian warships. He was therefore able to determine the points in every ship where an initial explosion would be most dangerous, and to instruct his subordinates accordingly. Plans of the principal Italian dockyards and naval bases were also placed at his disposal. Before being despatched on their sinister mission his men were carefully schooled in the work that lay before them, besides being provided with forged identity papers. Fiedler's staff work was admirable throughout. He overlooked no detail, however minute, and the striking success that attended the operations of this Austrian "bomb squad" was largely due to his organising abilities.

There appears to have been no difficulty in introducing the secret agents into Italian naval establishments. Italy's Adriatic coast-line, extensive and thinly populated as it is, could not be closely guarded at the best of times, and small hostile parties might have landed unobserved at any one of a dozen points along the coast. Fiedler himself is known to have paid several visits to Italy during the period of hostilities, and it is assumed that he was conveyed thither by submarine or aeroplane. There is good evidence that by July 1915, ten or twelve of his emissaries had reached their posts and were ready for action.

Their first attempt at sabotage, made in the following month, was a failure. Just as an Italian torpedo-boat was leaving Brindisi on patrol duty a bomb was found in one of the coal bunkers. The discovery is said to have been made by a trimmer who noticed that a large lump of coal gave out a metallic ring when his shovel struck it. On being removed and examined it was found to contain a powerful charge of ammonal. Had this infernal machine reached the boiler furnaces its explosion would unquestionably have wrecked the vessel. The sequel to this affair was the arrest of a workman, who was tried by court-martial and sentenced to be shot. Although his connection with Fiedler does not appear to have been established, he was almost certainly a member of the "bomb squad."

A few weeks later the wreckers achieved a staggering success by destroying a battleship. This was the *Benedetto Brin*, of 13,400 tons, with a crew of 800. Although not of modern design she was a fairly powerful vessel, the loss of which was a severe blow to the Italian Navy. On September 27, 1915, the battleship was lying at anchor when an explosion occurred in one of the lower compartments. A fierce fire started, and

before the flames could be got under they spread to a magazine, which blew up and destroyed the ship with over 400 of her crew. According to an official report of the inquiry into the disaster, "unimpeachable evidence of treachery" was obtained. This was corroborated after the war by an official Austrian admission that a bomb had been placed in the ship.

By now the Italians must have been fully alive to the hidden menace in their midst, and it is possible that the precautions they took gave them a respite from the activities of the "bomb squad." Not until the early part of 1916 was a fresh attempt reported, and this one miscarried. An explosion took place in a light cruiser stationed at Venice, but the damage was not serious. While the fire was being put out a heavy bomb was found in another part of the ship. It was hurled overboard, and, according to one account, exploded violently a few minutes later.

But the worst blow inflicted by Fiedler's dynamitards was yet to fall. On August 2, 1916, the new Dreadnought *Leonardo da Vinci* was lying in the inner basin at Taranto. One of the finest battleships in the Italian Navy, she displaced 22,000 tons, could steam at 23 knots, and was armed with the imposing battery of thirteen 12-in. guns. She had been in commission barely two years, and with other battleships was being held ready at Taranto to repel a sortie by the Austrian battle fleet.

At the moment of the disaster stores were being shipped in preparation for a cruise. Crowds of dockyard workmen and porters were continually passing up and down the gangways, and there can be little doubt that among these were one or more Austrian agents who contrived to take bombs on board. It was

precisely the opportunity for which they would be looking.

Suddenly there was a dull explosion below deck, followed by a burst of flame from the stern. The alarm was at once sounded and the crew fought the fire with great gallantry. But the ship was doomed. Another and more violent detonation occurred, involving a magazine, and soon afterwards the huge battleship turned turtle and sank. Two hundred officers and men, besides an unknown number of dockyard hands, lost their lives, and some casualties were caused in other ships by flying débris.

It was suspected from the first, and with reason, that enemy agents were responsible for the catastrophe. All exits from the dockyard were guarded while an exhaustive search was made, but without result. The most careful interrogation of the staff failed to disclose the presence of any intruder, a fact that speaks well for the care with which Fiedler had chosen his men. A court of inquiry attributed the destruction of the ship to "treachery," and the official finding to this effect was eventually published. For several months the disaster was concealed for military reasons, though it is hardly to be doubted that the news was speedily transmitted to Vienna by Austrian spies.

After this tragic affair the Italian authorities redoubled their precautions. The most elaborate measures were taken for the protection of ships and dockyards. Detectives in various guises were stationed in every vessel while it remained in port, and others kept a strict watch among the dockyard personnel. This vigilance appears to have checked the activities of the wreckers, since no further outrage occurred.

But Fiedler had other plans up his sleeve, one of

which he now put into execution. Austrian intelligence agents had reported that the Italian submarine base at Taranto, which lay at some distance from the main harbour, was easily accessible and seemed to be indifferently guarded. As many as a dozen submarines were sometimes moored together in the basin, and when leave was being given the boats were almost deserted, only two or three men remaining on board. On the strength of this information the Austrian "bomb squad" prepared to carry out its most daring enterprise—a lightning raid on the base and the destruction or disablement of all the submarines that might be found there.

Two officers and twenty men were chosen for the raiding party, the majority of whom spoke fluent Italian. Armed to the teeth and equipped with powerful bombs they were to be landed after nightfall at a point on the Italian coast some miles distant from the submarine base. A rapid march would bring them to their destination before dawn. Sentries or others who resisted were to be shot down. Bombs with quick-action fuses would then be thrown down the hatches of every submarine that could be reached; or alternatively, if time permitted, the sea-cocks were to be opened before the bombs were placed in position. Every boat so treated would therefore be sunk, besides having its interior shattered by high-explosives.

All went according to plan—up to a point. One moonless night the raiders were put ashore undetected, either a submarine or a fast motor-boat having been used for the purpose, and began their forced march without delay, the few people they met on the road naturally mistaking them for an Italian detachment. But it was now that a flaw in the otherwise well-planned scheme began to reveal itself. The men were so heavily

laden with weapons and bombs that their marching pace soon flagged and the party had to make frequent halts for rest. Daybreak found them still two miles from their objective, and soon afterwards they were challenged by an Italian patrol. As resistance would have been useless and their men were exhausted, the two Austrian officers surrendered at discretion. The Italians appear to have been much impressed by the dare-devil gallantry of the raiders, for the latter were well treated as prisoners of war in spite of a candid avowal of their desperate mission.

The exploits of the Austrian "bomb squad" related above are those which have been fully authenticated, and, indeed, admitted by Austrian war historians. But according to Fiedler himself his operations were more comprehensive and destructive than the official records indicate. He claimed to have been instrumental in destroying about 50,000 tons of enemy shipping, and it is not impossible that certain losses attributed to other causes were really due to his ingenious methods of "secret warfare." He appears to have received a sum of £5,000 for his services, a reward by no means excessive.

In return the Italians took a heavy toll of Austrian naval tonnage by tactics equally daring if less underhand. For sheer hardihood it would be difficult to parallel Captain Rizzo's raid on the stronghold of Pola in a tiny motor launch, with which he torpedoed and sank the old battleship *Wien* in the very shadow of the batteries, and then got clear away. A further and equally amazing exploit of his was the sinking in open sea of the huge Austrian Dreadnought *Szent Istvan*. On this occasion he took his cockleshell motor boat right through the protective screen of Austrian destroyers, drove a torpedo into the vitals of the mastodon, and

then escaped without a scratch, checking the pursuit by dropping depth-charges in his wake.

Yet another heroic and almost incredible exploit was that of the two Italian officers who, on the eve of the Armistice, swam with a mine into the war harbour at Pola and attached it to the hull of the Dreadnought *Viribus Unitis*, which was destroyed by the subsequent explosion. No history of the naval campaign yet published has done full justice to these truly Homeric achievements by the seamen of Italy.¹

To this day it is a moot point whether the mysterious explosions which cost the British Navy five fighting ships during the war were due in every case to pure accident. Save in one instance, it is true, there is no reliable evidence to the contrary, for the rumours which inevitably circulate on such occasions need to be heavily discounted. The information given out at the time was necessarily meagre, nor has it been much amplified since. In the circumstances there are no grounds on which to challenge the official verdict of accidental causes in the case of the *Bulwark*, the *Princess Irene*, the *Vanguard*, or the *Glatton*. Only when we come to consider the fate of the *Natal* does a suspicion creep in that the theory of accident may have been premature.

The war was not yet four months old when the first of these grievous disasters momentarily stunned the nation. On the morning of November 26, 1914, H.M.S. *Bulwark*, a pre-Dreadnought battleship of 15,000 tons, commanded by Captain Guy L. Sclater, was lying in Rithole Reach at Sheerness. Magazine working parties were stowing away a quantity of ammunition which had been taken on board the

¹ A full account of these amazing exploits is given in Chapter XV.

previous day. It was just before eight o'clock. A number of men were at drill and the ship's band was assembled on the quarter-deck in readiness for the hoisting of the colours. But they were never hoisted. Suddenly the battleship was enveloped in a thick pall of smoke, and a thunderous explosion echoed across the water. When the canopy lifted no vestige of the ship was to be seen.

Eye-witnesses, who said that the explosion began in the after-magazine, described it as "a series of fire-works running from one end of the ship to the other." Lieutenant B. G. Carroll, assistant coaling officer at Sheerness, was passing down the Medway at the time. He had just read a routine signal from the *Bulwark* when he saw a spurt of flame from abaft the after 12-in. turret. "Then the volume of flame seemed to rush towards the after-funnel. The whole interior of the ship appeared to have blown into the air and everything was alight." Neither he nor other observers noticed any disturbance in the water, which remained quite placid. There were, he added, eleven magazines in the ship, all of which apparently went up.

The explosion was heard in places twenty miles away. At Southend and Westcliff-on-Sea residents on the front saw a vivid flash, followed by dense clouds of greenish smoke, which hung in the air for ten minutes. Hundreds of German civilian prisoners on board vessels in Southend Roads were alarmed by the concussion. On the scene itself the surface of the water was littered with pieces of wood, hammocks, fragments of clothing, and the like. As the *Bulwark* had many confidential papers on board a strict search for these was made in the surrounding neighbourhood. Out of the whole ship's company numbering nearly 800 there were but fourteen survivors, two of whom succumbed to their injuries.

The heavy loss of life was explained by the fact that shore leave had ceased at 7 a.m., so that the ship had her full complement on board.

At first it was not unnaturally assumed that the battleship had been hit by a German submarine, and the other ships in port promptly put out their torpedonets. But this idea was soon discarded. On the same day the two flag officers at the Nore informed the Admiralty that "it was an internal magazine explosion which had rent the ship asunder." This view was taken by the Court of Inquiry, which reported as follows:

"It is clear from the evidence produced that the explosion which caused the loss of the ship was due to the accidental ignition of ammunition on board the ship. There is no evidence to support the suggestion that the explosion was due either to treachery on board the ship or to an act of the enemy."

The next catastrophe of this nature occurred on May 27, 1915, when the *Princess Irene*, an auxiliary minelayer, was destroyed. Of 5,934 tons gross, she was one of two fine steamers completed in 1914 for the Canadian Pacific Railway's Pacific service. Both had subsequently been purchased by the Admiralty and converted into minelayers. At the time of the disaster the *Princess Irene* (Captain Mervyn H. Cobbe, R.N.) was moored off Port Victoria, and a large party of shipwrights was working on board. At 11.15 a.m. there was a terrific explosion and a gush of smoke which hid everything for some minutes. When this dispersed the big three-funnelled steamer had vanished, leaving scarcely any wreckage afloat.

The explosion was described as being far louder than that which had destroyed the *Bulwark* six months earlier. Flying fragments of the ship were scattered

over a wide area, causing a number of casualties both on board other vessels and on the shore. So violent was the blast that houses many miles away were damaged. At Sittingbourne plate-glass shop fronts were blown in, hundreds of windows shattered, and chimneys brought down. At Upchurch, which overlooks the Medway and is five miles from the scene of the disaster, the top of the church tower collapsed.

A great cloud of papers was blown into the air from the ship, and although no breeze was blowing at the time, some of these were carried ten to twelve miles inland. Many were picked up in villages in and about Maidstone. At Allington, Barming, and Teston naval signal forms and other documents, scorched and splashed with lead, descended in showers. At Newington, eight miles from the scene as the crow flies, two towels bearing the ship's name were found.

Four hundred officers and men, including seventy-eight dockyard hands, lost their lives. There was only one survivor, Stoker David Wills, and he was severely burned. In view of the perilous nature of her cargo the cause of the *Princess Irene's* loss was easy to conjecture. In the absence of any evidence to the contrary it was assumed that a mine must have been dropped or jolted. As hundreds of these deadly engines were stowed in the ship it is not surprising that she should have been blown to atoms. Her sister ship, *Princess Margaret*, survived the war and remained in commission as a minelayer until 1927.

The third British ship to be destroyed by what appeared to be an internal explosion was H.M.S. *Natal* (Captain Eric P. C. Black, R.N.), an armoured cruiser of 13,550 tons and 22½ knots speed, mounting six 9·2-in. and four 7·5-in. guns. She had formed part of

the escorting squadron to the liner *Medina*, which conveyed the King and Queen to and from India for the Coronation Durbar in 1911-12. In the afternoon of December 30, 1915, the *Natal* was anchored in Cromarty Firth, off the village which lends its name to the firth. A New Year's party was being held, and among the guests from the shore were a number of children. Lady Jellicoe, wife of the Commander-in-Chief of the Grand Fleet, had promised to attend, but was detained at the last moment. A considerable number of the officers and men were ashore or visiting other ships.

Persons at Cromarty heard a muffled explosion and saw volumes of smoke pouring out of the after-part of the ship. The detonation occurred deep down in the hull, and was so muffled as to pass unheard on board vessels at adjoining berths. It was quickly followed by other and more violent explosions. The *Natal* heeled over and quickly sank, 428 people perishing with her. Most of the survivors were in the fore-part of the ship, which was the least damaged and the last to sink. They all ascribed the disaster to a magazine explosion, and this, it is understood, was the verdict of the Court of Inquiry. Japanese small-arms ammunition, which had been supplied to the Navy to replace Government supplies urgently required on the Western Front, was suspected of having been the original cause, and after the *Natal* explosion all the stocks of this ammunition were landed or thrown into the sea.

In spite of the official verdict the theory of accident was not unanimously accepted, and to this day there are responsible people who believe the *Natal* to have been destroyed through indirect action by the enemy. Until 1930 their views were not supported by definite evidence—unless they had information which it was considered desirable to withhold; but in that year a

dramatic discovery was reported as having been made during salvage operations on the wreck.

According to this report most if not all of the magazines which were supposed to have exploded were found to be intact. It is possible, of course, that only one magazine went up and the others became immediately flooded—the ship being in harbour trim with watertight doors open—in which case they would naturally be found with their contents unexploded. Since this explanation has been advanced by one of the *Natal's* survivors ¹ it cannot be ignored.

On the other hand, the theory of an infernal machine is still held in more than one informed quarter. Here it is pointed out that enemy agents would have had no difficulty in planting bombs in the ship. She had returned from Liverpool, where she had been docked, a few days previously. At that port the dock gates were left unguarded, and apparently no control was exercised over persons entering and leaving. It would have been easy enough for an enemy agent in the guise of a workman to gain access to a warship. Some months after the *Natal* tragedy it was rumoured in the Grand Fleet that a man in workman's clothes had been found on board the cruiser *Antrim*, tampering with the electric circuits in the magazines. Be that as it may, the cause of the destruction of the *Natal* does not appear to have been conclusively established, and the discovery said to have been made by the salvors at Cromarty only serves to deepen the mystery.

In the Admiralty's opinion, at any rate, there was nothing mysterious about the destruction of H.M.S. *Vanguard* (Captain James D. Dick, R.N.) in July 1917, judging from the official announcement made five days later in the following terms: "The *Vanguard* blew up

¹ Personally interviewed by the author.

whilst at anchor on the night of the 9th inst., as the result of an internal explosion. The ship sank immediately, and there were only three survivors among those who were on board the ship at the time of the disaster—namely, one officer and two men, and the officer has since died.” The phrase “an internal explosion” was obviously meant to indicate the spontaneous ignition of ammunition, and was no doubt inserted to allay public apprehension, which had been excited by these successive disasters of unknown origin.

Of these, the loss of the *Vanguard* was the most serious from every point of view. The death-roll of 800 was the heaviest yet recorded, and the ship herself was a valuable unit of the battle fleet. A Dreadnought of 19,250 tons, armed with ten 12-in. guns, she had been in service for seven years. The explosion occurred while the ship was lying in the main anchorage at Scapa Flow, surrounded by her consorts. She went up in a sheet of flame, and when the smoke blew away and the rain of débris ceased, nothing visible remained of the great battleship.

In the cataclysm of a world war even this shocking event was dismissed with a few lines in the Admiralty communiqué. But the fact that our ships were obviously and constantly exposed to some unseen menace, even when inside their fortified anchorages, was now causing widespread alarm, which found vent in Parliament. A demand was raised that all workmen sent on board warships for any purpose should be under the supervision of the officer commanding the ship, who should have power to search them and to inquire into their antecedents. Viscount Templeton, who voiced this demand, hinted that a man who was believed to be responsible for the *Vanguard* disaster had been apprehended. This was denied by the Admiralty, but public

opinion could not remain insensible to the disturbing rumours which continued to circulate.

A distinguished naval correspondent wrote at the time: "This is not, unfortunately, the first disaster of the kind which has occurred in the British fleet. On former occasions foul play has been suggested as a possibility, but official assurances were given to soothe these fears. In the meantime, however, the Stockholm revelations have been published, and we have learned of high-explosives being made up to represent pieces of coal to be inserted in ships' bunkers. Since this war disasters due to internal combustion have occurred to British, French, and Italian ships, but so far as is known none has taken place in connection with the German and Austrian fleets."

In contrast to the grievous tale of Allied losses from this cause, the immunity of the enemy's ships was indeed remarkable.¹ The theory of accident presupposed either defective ammunition, careless handling or stowage, or inadequate magazine precautions; but it is strange that such faults should be present in the Allied navies alone (Japan lost two ships and Russia one vessel by internal explosion) and conspicuously absent from the fleets of the enemy—so strange, indeed, as to cast grave doubt on the whole theory.

The fifth, and what happily proved to be the last, of our warships to fall a victim to this obscure menace was the monitor *Glatton*. Again we meet the significant coincidence that the disaster occurred not at sea but in a fortified harbour. The *Glatton* was built in England as a Norwegian coast-defence battleship, but was subsequently incorporated in the British Navy. On

¹ The sole exception was the German cruiser *Karlsruhe*, blown up on November 4, 1914. Deteriorated ammunition was officially accepted as the cause.

September 16, 1918, she was berthed in Dover harbour, which was crowded with shipping, including four monitors which were about to bombard the Belgian coast in co-operation with the land offensive then nearing its triumphant conclusion.

Dusk was falling when a tremendous explosion shook the town. Crowds flocked to the sea front, whence the *Glatton* was seen to be burning furiously. Other explosions occurred, and tugboats and pinnaces were busy round the vessel, taking off injured men. The fire grew still fiercer, and at seven o'clock Vice-Admiral Keyes, realising the danger to the multitude on the harbour front, called in the aid of the military, who shepherded the people into the back streets.

It was feared that the fire would reach the *Glatton's* main magazines and an appalling catastrophe result, for moored quite close to the burning vessel were other ships with explosives on board, including depth-charges, and not far away was a ship loaded to the hatches with munitions, waiting to sail for France. In these circumstances Admiral Keyes wisely ordered the *Glatton* to be sunk, which was effected by torpedoes fired from a destroyer.

After the lapse of so many years it is scarcely to be hoped that further light will be shed on the five mysterious disasters which are described above. That the naval authorities possess no information on the subject other than what has been published seems very improbable. It is conceivable that a policy of reticence is advisable in the national interest. What the public does seem entitled to is an assurance not only that the cause or causes of these explosions, whether accidental or the reverse, has been determined with reasonable certainty, but that effectual measures have been taken

to prevent their recurrence in the future, whether in war or in peace. But the fact that the final disaster occurred nearly four years after the first one suggests that the authorities remained as much in the dark in the end as they had been in the beginning.

CHAPTER VI

WHEN ZEPPELINS BLAZED: A GREAT SECRET SERVICE COUP

THE partial destruction of the largest and best-equipped German airship base, together with five airships of the latest type, was probably the most staggering blow of its kind ever delivered by the Allied Secret Service. While this Service had no organised band of wreckers corresponding to the Austrian "bomb squad" whose exploits have already been narrated, it was undoubtedly responsible for several German war disasters, most of which were either suppressed or, for reasons of policy, ascribed to other causes.

Even the catastrophe at the Alhorn Zeppelin aerodrome was concealed from the German public until the war was over, and only of recent years has its probable origin been officially admitted. The following account of this intensely dramatic affair has been compiled mainly from German disclosures made as lately as 1931.

An exaggerated estimate of the value of Zeppelins as naval auxiliaries led the Germans, on the outbreak of war, to develop their airship service on a grand scale. Not only was a large building programme put in hand, but steps were taken to establish a chain of aerodromes along the whole German coast-line, from Ostend in Belgium to Königsberg in East Prussia. Eventually

there were no less than sixteen stations with shed accommodation available, including the emergency base at Jamboli in Bulgaria.

The first large sheds, those at Nordholz, near Cuxhaven, had been hurriedly completed in August 1914, and in the following year three more stations were built respectively at Tondern in Schleswig, Haage in East Friesland, and Seddin in Pomerania. In 1916, to meet the growing demand for sheds near the North Sea coast, a new base was laid out at Alhorn in Southern Oldenburg. This, the largest of all, was to have become the headquarters of the naval airship service, which was under the control of Captain Peter Strasser; but the plan had to be abandoned for reasons which will presently appear.

Built at a cost of over £1,500,000, the Alhorn aerodrome was finished early in 1917. It comprised three groups of sheds in pairs, each shed capable of housing two Zeppelins. In all, therefore, twelve airships could be accommodated at the same time. Four of the sheds were each 788 ft. in length, 197 ft. wide, and 115 ft. high; in the other two the length was increased to 853 ft. and the width to 246 ft. The equipment included a huge gas plant with high- and low-pressure gasometers; subterranean benzine tanks, workshops, barracks, signal and weather stations. Bombs and machine-gun ammunition were stored in underground magazines.

Strict rules were in force for the prevention of fires or other accidents. As soon as an airship had returned to its shed after a cruise, all ammunition was removed. Inside the sheds naked lights were forbidden, and for cleaning purposes special non-inflammable compounds were provided. These were necessary precautions, for there was always a certain leakage of hydrogen from

the ballonets, and the danger of an explosion was ever-present.

On the afternoon of January 5, 1918, unusual activity prevailed at the aerodrome, for the five airships then in the sheds were being made ready for a very important mission. Admiral Scheer was about to sail with the High Seas Fleet at full strength on "an enterprise of great importance to the conduct of the war." The nature of this enterprise has not been divulged, but it was very probably a raid on the East Coast of Great Britain. Aerial co-operation was an essential feature of the plan. Not only were all available Zeppelins to take part, but the military air force had placed several squadrons of heavy bombers at Admiral Scheer's disposal. The five airships at Alhorn, being the very latest of their type, were cast for a leading rôle in the scheme.

In shed No. 1 lay the *L 47* and *L 51*; the other three, *L 58*, *L 46*, and *SL 20*, each had a shed to itself. All five vessels had just been fully inflated. The aerodrome staff numbered about one thousand, but at the moment of the catastrophe comparatively few men were inside or near the sheds. A recent German report admits that symptoms of sedition had been observed among the Alhorn personnel months beforehand, and draws the conclusion that one or more of the men probably succumbed to the overtures of Allied agents.

At 5.25 p.m. a slight explosion occurred in the forward gondola of *L 51*, followed by a sheet of flame. Blazing benzine poured out and ran along the floor of the shed, setting fire to everything in its path, and within a few seconds the great building and the two airships it contained blew up with an appalling crash. Almost immediately afterwards the other sheds exploded, though one group was distant four hundred and the

other eight hundred yards from the scene of the first detonation. So violent were the explosions that most of the buildings surrounding the aerodrome were shattered, and the reports were distinctly heard in the streets of Oldenburg, twenty-two miles away.

"Thus, in less space than a minute," says a German account, "four sheds and five airships of the latest design were totally destroyed. The loss of these sheds, which would house eight Zeppelins, was the most serious blow, for while an airship could be built in two to three months, a full year was occupied in the building of a shed. Owing to the few men at work in the sheds at the time the loss of life was comparatively small. Fifteen were killed outright, thirty seriously injured, and 104 slightly hurt. About 300,000 cubic metres of gas and large quantities of benzine were involved in the fires and explosions. Besides the four sheds that were demolished, the remaining two were damaged."

A searching inquiry into the cause of the disaster was set on foot without delay. Every person on or near the scene who survived was closely interrogated, but all maintained that the safety regulations had been strictly observed and none was able to throw any new light on the matter. Foul play seems to have been suspected from the first, for long after the inquiry was officially closed investigations continued to be made into the character and antecedents of every member of the staff. One man, a non-commissioned officer, was an object of strong suspicion, but evidence to warrant the bringing of a definite charge against him could not be obtained.

Although the Court of Inquiry suggested an accident as the probable cause, this view was not shared by the officers on duty at the aerodrome. They pointed to the significant fact that fire had first broken out in the only shed which contained two airships. This, of

course, was the shed that would have been marked out for destruction by a secret agent. That the resulting explosion extended to the other sheds was an unexpected stroke of good fortune, which he certainly could not have foreseen. This person, of whose identity the German authorities still claim to be aware, is said to have received from the British Government the sum of £100,000 in payment for his services. He had certainly earned it, for the consequences of the disaster at Alhorn were far-reaching and momentous.

Since the five airships were to have taken a leading part in the projected naval offensive, their destruction dislocated Admiral Scheer's plans, and two days later the whole operation was countermanded. The airship service itself never recovered from the material and moral effects of the blow. If an accident had caused the disaster, then obviously every other airship and airship base was constantly exposed to the same danger, which no precautions could be trusted to avert. If, on the other hand, the cause was not accidental, it demonstrated the power of the enemy to strike with deadly force at the heart of the German war machine.

To this day "the treachery at Alhorn" is frequently referred to in the German Press, coupled with dark hints as to the fate which still hangs like the Damoclean sword above the head of the traitor. To a certain extent, therefore, the affair must still be considered *sub judice*, and in these circumstances it would be improper to add any comment that might afford a clue to the mystery which apparently still baffles the German investigators.

Since they appear to be satisfied that the disaster was due to enemy action they have paid a handsome tribute to the efficiency of Allied Secret Service work, and this no doubt will be appreciated in the proper quarter.

But in view of the elaborate plots that were hatched in Germany and Austria to destroy Allied warships and munition centres, some of which were duly carried out, the intense indignation expressed at the reciprocal measures taken by the Allies seems a little unreasonable. "Secret warfare" is a game at which two can play, and even now the results of this subterranean campaign are not clear enough to enable us to determine which side had the better of it.

In October 1918 an attempt was made to wreck the Zeppelin station at Wittmündhafen, bombs and incendiary capsules being found secreted in one of the sheds. Here again, according to the official report, there was plain evidence of Allied complicity. Two sailors were arrested, but before they could be brought to trial the revolution supervened and the charge appears to have been dropped.

It is a German, not a British, claim that the successful air raid on the Zeppelin sheds at Tondern in 1918 was due to a smart piece of work by the British Intelligence Service. Three days before the raid the anti-aircraft defences of Tondern were being reorganised, and a number of A.A. guns were dismounted for removal to other positions, so that for a short period the aerodrome was practically defenceless. According to the German version, this fact was promptly communicated to the British I.D. headquarters, which was quick to seize the opportunity.

On July 19, 1918, the aircraft carrier *Furious*, with a strong battleship escort, steamed to a position near Sylt and there flew off seven Sopwith Camel aeroplanes. Several of these reached the Tondern aerodrome and dropped their bombs with telling effect, two double sheds and the Zeppelins *L 54* and *L 60* being completely destroyed. Six weeks previously a mysterious explosion

had occurred at the Haage airship station, and this, too, was attributed to agents working for the Allies.

Whether or no the Allies were responsible for all the Zeppelin disasters which German historians lay at their door, it is true enough that the British Intelligence Service throughout the war was remarkably well-informed as to the activities of the German naval airship branch. This knowledge led our experts to form a low opinion of the Zeppelin as a naval auxiliary. They alone were in a position to read between the lines of the bombastic communiqués from Berlin which extolled the often imaginary achievements of German airships, for they alone knew what tremendous efforts had been made to secure results that were relatively trivial.

It will therefore not be out of place to give a brief résumé of the German Navy's airship policy during the war and its results, and, lest bias be suspected, I would add that all the facts and figures that follow are derived from German sources alone.

The first Zeppelin to be built specially for the navy was *L 1*, completed in 1913. She had made a few successful flights when, in September of that year, she was lost in a gale over the North Sea. The second airship, *L 2*, was equally unfortunate, being totally destroyed by a gas explosion on one of her first ascents. Thus in August 1914, the only naval airship available was the *L 3*, which was stationed at Nordholz, near Cuxhaven. For scouting work in the Baltic an old Parseval dirigible was used.

Soon after the outbreak an agreement was reached with the Army command under which one out of every two ships completed by the Zeppelin Company was to be handed over to the Navy. This service also secured control over a number of Schütte-Lanz airships, which differed from the Zeppelins in being built of wood sewn

with wire, in place of an aluminium framework. As mentioned above, a chain of aerodromes was established along the North Sea and Baltic coast-lines, and from these stations weather reports were transmitted every three hours by wireless or cable to the naval headquarters at Wilhelmshaven. Special arrangements had to be made for supplying gas to the various depôts, as in most cases the local resources were inadequate for the purpose. This widespread organisation absorbed a very large personnel, and it was no easy matter to find the requisite number of specially trained officers and men.

It was soon discovered that the type of airship in use at the beginning of the war, which was of 22,500 cubic metres capacity, was not sufficiently powerful to perform the arduous duties of active service, including long-distance raids. The next type was therefore increased to 32,000 cubic metres, which had already been reached in the first Schütte-Lanz to be acquired by the Navy. Even this size proved inadequate, however, and early in 1916 the *L 30*, of 55,000 cubic metres, was built.

The difficulty of handling such large vessels on the ground, especially in bad weather, was very great, for which reason it looked as though the limit of dimensions had been reached, and for the next two years the 55,000 cubic metre type continued to represent the standard German airship. Besides the Zeppelin the only other rigid type that proved equal to the strain of war service was the Schütte-Lanz, and even these vessels were unsuited to North Sea work owing to their wooden construction. A few non-rigids were built for coast patrol, corresponding to the British "blimps."

In the autumn of 1916 the naval airship service began to suffer severe losses in the course of its raids over Great

Britain, where the anti-aircraft batteries and defending aeroplanes had become both numerous and efficient. But in spite of heavy casualties Captain Strasser, who commanded the naval Zeppelin fleet, worked unremittingly to overcome the defence, introducing various modifications which enabled the airships to rise to much greater altitudes when over hostile territory. By the summer of 1917 attacks were being made from heights so great that the personnel had to be artificially supplied with oxygen. Airships scouting at sea were also compelled to fly very high—eventually at 16,400 ft.—to avoid attack by enemy seaplanes, and, later on, by aeroplanes flown from the decks of British cruisers or from lighters towed by destroyers.

Towards the end of 1917 a plan was evolved of conveying to General Lettow-Vorbeck's hard-pressed troops in East Africa a supply of ammunition and medical stores by a Zeppelin, the feasibility of the enterprise having been demonstrated by an endurance flight of 105 hours made by the *LZ 120*. An airship of the 55,000 cubic metre class, *L 57*, was selected for the voyage and lengthened by 98½ ft. to increase her useful load. This vessel, however, came to grief on her trial trip, and eight weeks elapsed before a new ship, the *L 59*, could be made ready.

Starting from an emergency base at Jamboli, in Bulgaria, her captain claimed to have penetrated as far as the Dachel oasis on the Upper Nile when a wireless message was received from Berlin, ordering him to return, as news had come of the evacuation of East Africa by the German troops. The *L 59* returned to Jamboli without mishap, after a round voyage lasting ninety-six hours, the total distance covered being 4,375 miles. This was the boldest and most remarkable airship flight of the whole war.

On returning to her base the *L 59* was partially reconstructed, after she had made a raid on Naples. Her next exploit was to have been a bomb attack on the British naval base at Malta. She carried a load of 6-cwt. bombs, the heaviest made for German aircraft, and it was hoped to inflict severe damage on the dockyard and public buildings of the island. Although the preparations were made in all secrecy, news of the intended raid reached the British authorities several days in advance. A warm reception was arranged for the Zeppelin, but she failed to appear. Subsequently it became known that she had been destroyed with all hands by an explosion while over the Strait of Otranto. The cause of the disaster was never ascertained.

In addition to casualties from enemy action, heavy losses were suffered through bad weather, accident, and sabotage. Before the Alhorn catastrophe there had already been several cases of individual ships having been destroyed in their sheds by fire, and in more than one instance "treachery" was suspected. By 1918 it was recognised that the war value of the Zeppelin had sensibly declined. Aeroplanes in conjunction with a well-organised anti-aircraft artillery had rendered airship raids on Great Britain too hazardous to be attempted, except on rare occasions when the weather was particularly auspicious. At the same time airship reconnaissance over the North Sea had become exceedingly dangerous by reason of the speedy and fast-climbing aeroplanes carried on British warships.

In the vain hope of circumventing British gunners and aviators, Captain Strasser designed a new type beginning with *L 70*. She was fitted with seven motors, developing 1,800 h.p., her speed was 70 miles an hour, and she could reach a ceiling of nearly 23,000 ft.

On August 5-6, 1918, this giant craft set out to raid England, those on board including Captain Strasser himself, who had insisted on making the expedition in spite of the remonstrances of his brother officers.

Unfortunately for the *L 70*, the atmospheric conditions over the North Sea were such that she could not maintain her maximum altitude. Off Cromer she was sighted by a D.H. 4 aeroplane, piloted by Major E. Cadbury, who pursued her and shot her down in flames, all on board perishing. Apart from the loss of its best airship, the death of Captain Strasser was a paralysing blow to the naval Zeppelin corps, and one from which it never recovered.

His fate caused a profound impression in Germany, which was intensified when, five days later, the *L 53*, commanded by Captain Prölss, another of the ablest officers of the corps, was also destroyed over the North Sea. This event occurred on August 11, 1918. The *L 53* had been watching a fierce action between British coastal motor-boats and a flight of German seaplanes, which had ended disastrously for the former. But she remained hovering near the scene too long, and was sighted from ships of the Harwich Force which were in the neighbourhood.

A Sopwith Camel flown off a lighter caught the big airship unawares. She made off at full speed towards the east, but it was too late. Watchers in the British squadron saw a tongue of fire spurt from the Zeppelin as the incendiary bullets of her tiny assailant found their mark; then the whole fabric burst into flames, broke in two, and fell, a blazing mass of wreckage, into the sea. While the victorious aeroplane was winging its way back to the squadron the commander-in-chief made a somewhat cryptic signal: "See Hymn No. 224, Ancient and Modern, last verse." Needless to say, hymn-books

were feverishly thumbed in every ship until this particular hymn and verse were found:

“O happy band of pilgrims,
Look upward to the skies,
Where such a light affliction
Shall win so great a prize.”

These successive disasters caused a reaction against the Zeppelin, for all further raids and reconnaissances were forbidden, pending the completion of a new type, which it was hoped would prove less vulnerable. This vessel had a capacity of 62,000 cubic metres, but before she was ready the German cause collapsed.

The principal war duties assigned to the German naval airships, as defined by a former officer of the service (Lieutenant von Schiller, in the *Marine Rundschau*), were:

(1) Daylight reconnaissance of a general nature in the Baltic, North Sea, Skagerrak and Cattegat, and often as far as the British coast; in the summer months, scouting at night.

(2) Scouting in advance when sorties by the fleet or special naval enterprises were contemplated.

(3) Screening the battle fleet at sea and giving escort to outward or homeward bound auxiliary cruisers.

(4) Protecting the mine-sweeping flotillas and occasionally searching for mines themselves.

(5) Making bomb attacks on Great Britain and Russia.

In reviewing the Zeppelin raids on England, Lieut. von Schiller argues that they were justified not only by the material and moral damage inflicted, but also by the fact that the Zeppelin menace compelled the British to retain at home a large number of guns, aeroplanes, and men whose weight would otherwise have been felt on the Western Front. When the

revolution occurred the German navy had only seven effective airships left, though from beginning to end it had possessed nearly eighty. The seven remaining vessels were intentionally destroyed in their sheds on July 19, 1919—the day on which the High Seas Fleet was scuttled at its anchorage in Scapa Flow.

As the Germans themselves admit, the building up and maintenance of the airship fleet, with its mammoth sheds, gas depôts, weather bureaus, etc., imposed a heavy strain on the nation's resources, besides diverting a great deal of energy from other branches of war activity. That the achievements of this fleet bore any reasonable proportion to what it had cost in money and effort no impartial judge would affirm. Zeppelins took no important part in any naval operation, and they were invariably absent at critical moments.

At the Dogger Bank action timely news from air scouts would have spared the Germans the loss of the *Blücher*, while at Jutland they might have proved invaluable to the High Seas Fleet. Yet although Zeppelins were up on each occasion they saw little of what was going on and sent no reports of any value. During the sortie of August 1916, Admiral Scheer had nearly a dozen airships patrolling the skies, but the only definite message he received from them concerned "the approach of British battleships from the south." Actually the forces in question were only light cruisers and destroyers, but this misleading information led the German Admiral to suspend operations and return home. At that moment the Grand Fleet was approaching him from the north, but he received no warning from his Zeppelin scouts in that direction, and but for the erroneous news he had heard from another airship, which decided him to beat a hasty retreat, he would probably have been caught unawares.

In their other naval duties the Zeppelins proved equally futile. Although very frequently used for patrol work in the Heligoland Bight they were never able to prevent our forces, notably the minelayers and submarines, from breaking into those waters, even if they detected their approach. For reasons never explained their reports were almost always inaccurate, so much so, indeed, that they were more of a hindrance than a help to German squadron commanders. They launched hundreds of bombs at British warships but never made a hit, their total "bag" in the North Sea amounting to a couple of unarmed merchantmen.

German naval officers, other than those attached to the airship fleet, came to regard the Zeppelins as a luxury which could well be dispensed with. Admiral Scheer and his squadron chiefs are said to have referred to them in disparaging terms after the fiasco of August 1916, and in the projected sortie of the fleet at the end of the war little reliance was placed on these deceptive auxiliaries.

That in spite of the glaring and speedily demonstrated limitations of the type, which reduced its value for any serious naval duty to negligible proportions, the Zeppelin arm should have been developed with so much energy throughout the war period is something of a mystery. If the money, time, and labour expended on the creation of this huge fleet of vulnerable gas-bags had been devoted instead to the expansion of heavier-than-air craft, the gain from the military point of view would undoubtedly have been greater.

It seems more than likely that Germany's airship policy was governed by sentiment rather than strict utility. From its earliest days the Zeppelin was acclaimed as the peculiar symbol of German puissance, of Teutonic supremacy in the international contest for

the mastery of the air. Was it not the ex-Kaiser himself who publicly declared Count Zeppelin to be "the greatest German of the twentieth century"?

Moreover, the Zeppelin was of considerable value as an instrument of propaganda. It was the one weapon which could surmount the otherwise impregnable rampart of British naval power and deal out "punishment" to the arch-enemy on his own soil. For the first two years of the war at least the Zeppelin raids against Great Britain had a tonic effect on the *morale* of the German people, helping to counteract the depressing influence of the blockade and the frustrated hopes of a swift victory. This effect was all the greater in that the severe casualties suffered by the airships were either suppressed or minimised. The staggering disaster of Alhorn, for example, was concealed from the German public until the end of the war. They therefore remained in blissful ignorance of what has been aptly described as "the funereal pyre of the German airship service."

CHAPTER VII

THE SPY SCARE IN GERMANY: SOME FAMOUS CASES RECALLED

A CHARACTERISTIC feature of big-navy propaganda in the Germany of pre-war times was the skilful exploitation of "spy fever." This epidemic, which raged with extreme violence from 1910 to August 1914, was nourished by the numerous cases of alleged espionage which were either deliberately faked or grossly exaggerated by the Navy Department. The motive was never in doubt, for Admiral von Tirpitz, the architect of German sea-power, once confessed that every spy who was caught was worth a new cruiser to him.

This being so, it is not surprising that pains were taken to ensure a steady supply of these invaluable if involuntary helpers. *Agents provocateurs* were employed without scruple to lure victims into the net. Traps richly baited with gold were laid inside the German dockyards and arsenals, and even in the fleet itself, for when foreign "spies" did not come forward in the requisite quantity, no compunction was shown in branding scores of Germans as foul traitors to their Fatherland.

It is charitable to suppose that Admiral von Tirpitz did not fully realise the implications of his activities in this connection, least of all the slur they cast on German loyalty and patriotism. But the facts and the figures were damning enough. In 1911 six German

nationals were arrested on charges of espionage; in 1912 the number rose to twenty-two; in 1913 there were sixteen, and in the first six months of 1914 no less than fourteen such arrests. Thus, within a period of three and a half years, fifty-eight German subjects were accused, and the majority convicted, of selling their country's secrets to the foreigner. No other nation has ever been saddled with such a brood of traitors.

But it would be doing the German people a grave injustice to assume that all these suspects were, in fact, guilty of the crime charged against them. In many of the cases such evidence as came to light would have been dismissed as frivolous by any properly constituted tribunal. But as they were almost always heard *in camera*, public knowledge of the proceedings was confined to the brief and cleverly-edited version circulated by the authorities after each trial. Notwithstanding the ostensible secrecy in which they were shrouded, the German Press was encouraged to print the most sensational stories about these affairs. In every instance the suspect was tried and condemned by the newspapers on the morrow of his arrest, for on such occasions the strict official control of the Press was conveniently relaxed.

By an odd coincidence spy cases were always most numerous just before the introduction of some new measure for expanding the German Navy. 1912 was a bumper year for espionage trials, and in that year the Bill for adding a new squadron to the High Seas Fleet and substantially increasing the submarine arm was submitted to the Reichstag. As this measure had been strongly resisted by the liberal elements in Germany, its authors had to rally all the forces of nationalism to their support,

but thanks in the main to the timely discovery of more than a score of so-called espionage plots, the Bill was passed by a handsome majority.

Reporting one of these discoveries on July 2, 1912, the Berlin correspondent of *The Times* offered some pungent comments on the methods of the German Press. Every suspected person, he pointed out, was at once declared to be working for "England and France." "Day by day it is at least suggested that Germany is infested by spies to the great peril of her security." These tactics were "calculated to inflame popular feeling and create a taste for spy-hunting. It is hardly observed that an impartial reader who relied on the German newspapers would arrive at the conclusion not so much that Germany is surrounded by spies as that her dockyards and arsenals are full of traitors and that her police system is neither secret no efficient."

Yet at the very time when Germany was complaining most bitterly of her exposure to espionage, she herself was subsidising a legion of spies in France, Russia, and Great Britain. During 1912, according to French records, over a hundred German secret agents were identified in France and her colonies. In the same year upwards of twenty Germans resident in Great Britain were known to our Security Service to be engaged in espionage, and besides these permanent agents there were a great many transient German spies.

But in contrast to German practice, neither the French nor the British Government gave undue advertisement to the presence of spies. It was felt, no doubt, that this sort of publicity was harmful to international relations, and that the activities of foreign secret agents could be countered quite effectually by less spectacular methods. While, therefore, most of the German

agents working in this country were unobtrusively watched by Scotland Yard, they were not prosecuted save in exceptional circumstances. Had we wished to do so we could have staged an espionage trial every month, and in this way have brought home to our people the reality of the German menace. That we refrained from taking such a course is but one more proof of Great Britain's studied avoidance of provocative action during the critical period when Germany was spoiling for a fight.

At the end of 1911 two events occurred to excite public feeling in Germany on the question of national defence, thus bringing grist to the Navy Department's mill. The first was the escape of Captain Lux from the fortress of Glatz; the second was the most sensational "spy" trial which had been held since the Brandon-Trench affair.

Captain Lux was a French officer of engineers, who on June 29, 1911, had been tried by the Supreme Court of the Empire at Leipzig on a charge of attempted espionage and sentenced to six years' detention in a fortress. He had been arrested in December of the previous year at Friedrichshafen, the Zeppelin building centre, where he was alleged to have attempted to procure secret information about the new airships. Evidence to this effect was tendered by a motley crowd of witnesses, including a postman and a maker of artificial teeth. It would have been interesting to hear the testimony of the last-named person, but the authorities churlishly refused to disclose it.

After receiving his sentence Captain Lux was taken to the fortress of Glatz in Silesia. Among his fellow-captives here was Captain Bernard Trench, the British officer of Marines who had been associated with Lieutenant Brandon, R.N., in the famous Borkum

affair. The restless spirit of Captain Lux appears to have chafed under confinement, and having made himself familiar with the routine of the fortress he devised a plan of escape. Although he never revealed details of the scheme it is obvious that he must have had accomplices outside, if not within the walls of the prison itself, since otherwise he could not have obtained the implements, the clothes, and the money which made his escape possible.

On the night of December 27, 1911, a guard looked in at Captain Lux's room and found it empty. The alarm was raised and the fortress searched, while military patrols scoured the country for miles around. But no trace of the fugitive was found. He had broken down the door of a corridor leading to his room, filed away the iron bars of a window, and let himself down the lofty outer wall of the fortress by a rope of bed-clothes. With true Gallic courtesy he left behind his prison dress, neatly folded, and a signed order for the payment of the bill for his food, together with a polite letter of thanks to the commandant of the fortress for his hospitality.

A police dog followed the escaping officer's trail from the foot of the wall to the railway station, where he must have boarded a train unobserved. At the time, however, it was freely suggested that both fortress guards and railway officials had been afflicted with sudden blindness by the dazzle of the gold which must have been smuggled through to the prisoner. Be that as it may, Captain Lux was able to make his way through Moravia or Bohemia and the Tyrol into Italy. He reached Paris on December 31, and next day, in full uniform, called at the Ministry of War, where he was presented by General Dubail, the Chief of Staff, to M. Messimy, the Minister of War. Although

his escape caused immense enthusiasm in Paris—the more so because he was a native of Alsace—the authorities wisely discouraged any demonstration, and Captain Lux was forbidden to show himself too freely in public.

Needless to say, the German Press worked itself into a state of fury. The *Lokal-Anzeiger* wrote of Captain Lux as if he had broken parole, and abused all French officers as having no sense of honour. There was a widespread demand for the imposition of penal servitude on all persons convicted of espionage. It came out that Captain Lux while at Glatz had been subject to the sharpest supervision, a circumstance which made his escape more remarkable.

A fortnight later Glatz again figured in the headlines, when it was officially reported that Captain Trench had attempted to commit suicide by hanging. The truth of the matter seems to be that the British officer had tried this desperate expedient in the hope of being transferred to hospital, from which escape would have been easier. The notion that his "attempted suicide" was anything more than a piece of camouflage was scouted by all who knew this gallant and high-spirited officer.

The sensational trial to which reference is made above opened at Leipzig on December 7, 1911. No less than five persons stood indicted for espionage, viz. Max Schultz, a "ship dealer" of Southampton; two Bremen engineers named Hipsich and Wulff; their landlady, Frau Eckermann, and a merchant named von Maack. On the eve of the trial the German newspapers, true to their practice of prejudging such cases, announced that "papers found on Schultz prove him to have been in the service of the British Admiralty and to have drawn official payments."

As Schultz was arrested at Hamburg in March 1911, it had taken the authorities eight months to build up their case against him.

This, said the German Press, indicated the far-reaching ramifications of the conspiracy. "The police have uncovered an elaborate scheme devised by the Intelligence Department of the British Admiralty to collect secret information in Germany." "Germany was to be covered with a network of spies fed with English gold and controlled and directed by English agents of higher rank." "People in good positions, belonging to the best circles in England, are led by their sporting instinct to take a part in this nefarious work."

These and similar statements, freely published before the trial, would have been regarded as gross contempt of court in any other country. In Germany, however, the Press was encouraged to inflame popular feeling in this way, spy-baiting being a potent means of mobilising support for the big-navy programmes.

The five persons brought to trial were accused of "having in Germany and in England, in the years 1910 and 1911, conveyed into the possession of the English Intelligence Service plans, drawings, and other material, the secrecy of which they knew to be necessary for the security of Germany." After a hearing which lasted several days all the accused were found guilty and sentenced to penal servitude—Hipsich to twelve years, Max Schultz to seven, von Maack and Frau Eckermann to three, and Wulff to two years.

Their alleged crimes were set forth in some detail in a lengthy official statement published after the trial, from which the following is extracted:—

"By the arrest at Hamburg in March 1911, a band

of spies has been rendered harmless which for many months laboured to obtain in Germany military secrets for the British espionage bureau. The delivery of these secrets was in the highest degree injurious to the security of the German Empire. The trial has produced overwhelming evidence of their guilt. In almost all the important points the court has relied upon the statements of Schultz. Although perhaps he has not told everything he knew, his statements could be credited.

"When he was arrested, and somebody remarked that this was unlucky for him, he said: 'Oh no, it was lucky, because if I had not been arrested I should have done a great deal more and I should not have got out of Germany in less than twenty years.' The court is convinced that Schultz has kept silence upon very important facts concerning the British Intelligence Service and its agents.

"Schultz, it appears, used the visits which he made to Germany to get into touch with all sorts of people with a view to learning military secrets. In particular he addressed himself to Hipsich and Wulff, acted as intermediary in their communications with the British Intelligence Service, supplied them with the code addresses and code words for their correspondence, and himself assisted in despatching their communications.

"Hipsich was by birth an Austrian. He had been employed for more than twelve years at the Weser shipyards in Bremen, and became a German subject in 1909, after the German Admiralty had forbidden the employment of foreigners in places of this kind. In his official capacity he had an opportunity to learn about plans for battleships and to obtain knowledge of many secret matters. He had made a large collection

of drawings and other important material, and he handed over the whole of it to the British Intelligence Department. The great value of this material is best proved by the surprise and unconcealed pleasure expressed by the British at the fact that it was at all possible to supply such information. Hipsich was promised £2 a week, and was given an advance of £20.

“ Von Maack had made the acquaintance of Schultz many years previously, and on the first day they met, Schultz asked him whether he could correspond with ‘ his English friends who were interested in naval matters.’ Maack eventually expressed his readiness, and recommended Hipsich, of the Weser yards, as a suitable person. He gave Schultz a written statement concerning the use of ships of the North German Lloyd, the Hamburg-Amerika, and other lines in the event of war.

“ This statement was sent to England by Schultz. In December 1910, Maack himself went to England and there met agents of the Intelligence Department. To them also he recommended Hipsich as a suitable man for obtaining secret information, and he explained the best means of securing him. He also promised to obtain information from a South German engineering works (Maschinenfabrik Augsburg-Nürnberg) concerning a motor for warship propulsion, in regard to which the British desired information.

“ Wulff had been for six years employed at the Norddeutsche Maschinen- und Armaturenfabrik, where he was engaged chiefly in installing and testing underwater signalling apparatus in warships and submarines. When Schultz was in Germany in 1910 Wulff gave him to understand that he was prepared to supply him with material. In March 1911 he had detailed negotiations with Schultz, and among other things.

received instructions to send in reports about the battleship *Ersatz Odin*.¹ These instructions he duly carried out.

"Frau Eckermann was the landlady of Wulff and Hipsich. It was she who brought Schultz and Hipsich into touch with Wulff and procured their employment by him as spies. She had complete knowledge of what Schultz was doing.

"As regards the sentences, Hipsich had to be punished most severely because he acted purely out of desire for gain and without any other motive. He has betrayed secrets of which he obtained knowledge in his official capacity, and he has in a grave degree imperilled the German Empire. Next comes Schultz. He is to be regarded as a foreigner, and he has made a confession. His counsel has pleaded mitigating circumstances, but the plea could not be allowed. By giving false evidence von Maack has added considerably to the difficulty of the trial. As a volunteer in the war of 1870 he must have been particularly well aware of the dangerous nature of the espionage practised by Schultz and Hipsich."

It would be difficult to exaggerate the sensation which this trial caused throughout Germany. Among the many wild statements published was one to the effect that Schultz and his myrmidons had supplied the British Admiralty with complete plans of all the latest German battleships, cruisers, and submarines, diagrams of new guns, and "full details of the most secret arrangements for defending the German coast-line against attack in war-time"! It was further alleged that Schultz had suborned dockyard officials in every German naval port, and received from them periodical

¹ Launched as the *Prinzregent Luitpold*.

reports on confidential matters relating to warships. Such exaggerations and downright falsehoods served their purpose, no doubt, and at this time of day it would be futile to expose them.

It may be said, however, that most of the information which Schultz offered to sell was found to be inaccurate, and little if any of it was accepted as genuine by the experts of the British naval intelligence section. The worth of this material can best be judged by the price alleged to have been paid for it. Limited as the funds of the British Secret Service may have been in those days, it is scarcely credible that a retainer of only £2 a week would have been offered to a man who, according to the official report of the trial, was in a position to reveal the innermost secrets of one of the greatest naval shipbuilding firms in Germany. That Schultz and his accomplices may have attempted to pry into naval secrets is likely enough, but there is no doubt whatever that the significance of what they did was grotesquely magnified for political purposes.

Early in January 1912, while the Schultz trial was still the principal topic of the hour, another shock was administered to the German public. A batch of confidential papers disappeared from the cruiser *Stettin*, the theft being ascribed as a matter of course to spies in British pay. Following this incident the Commander-in-Chief of the High Seas Fleet issued orders strictly forbidding tradespeople and other civilians to come on board any ships of the fleet. Rumours were spread that foreign agents had obtained access to warships on the pretext of selling provisions, etc., while a Kiel journal solemnly warned its naval readers to be on the look-out for a spy who posed as a barber and who had picked up many secrets by listening to the unguarded talk of his customers.

One of the first espionage trials of 1912 was that of a Prussian sergeant-major named Schroeder and his sweetheart, who had been arrested at Posen railway station as they were about to flee to Russia with plans of the fortress of Posen. The papers were found in the bosom of the woman's dress, together with letters from Russian military authorities, from which it appeared that the fugitives had been promised 16,000 roubles (£1,600) for the delivery of the plans.

On January 18, 1912, Baron von Winogradoff, a Russian naval reserve officer, was tried at Leipzig for espionage and sentenced to three years' confinement in a fortress. At the same time Wilhelm von Cerno, formerly a lieutenant in the Hungarian artillery, received a sentence of three years' imprisonment. It was alleged by the prosecution that von Cerno had been employed by the Russian Government to reside in Germany with a monthly salary and to send reports on naval matters. He had, in fact, lived in Kiel for a year, but his reports, when intercepted by the German Secret Service, were found to contain no secrets and to consist chiefly of newspaper cuttings and the fruits of his imagination. But the fact that he had consented to act as a resident spy was held to warrant a severe sentence.

Winogradoff had been sent to Germany to watch Cerno because the latter's reports were not satisfactory, but succumbing to the temptation to do a little espionage himself—he had made some drawings at Cuxhaven—he, too, had been caught in the toils.

Another case which occurred at this period made something of a stir. A former German police commissioner, one Reich, was charged with having attempted to bribe workmen both in the Krupp establishment at Essen and the Ehrhardt gun factory at

Düsseldorf to furnish him with secret armament plans. Beyond recording the sentence imposed the Press gave no particulars of this affair.

The summer months of 1912 brought a fresh crop of espionage trials at the Leipzig Supreme Court. A former German bluejacket named Ehlers received six years' penal servitude on June 27 for having communicated "to the British Government" portions of a German naval signal code. He was reported to have had many accomplices, but these apparently were not traced.

Ten days later Hans Eilers, an American citizen, was sentenced to four years' penal servitude for attempting to betray plans of the fortifications of Heligoland. His fiancée, Olga Kling, an Austrian subject, was given six months' imprisonment because she had failed to inform against Eilers, although she was well aware of what he was doing. It may be doubted whether any save a German tribunal would have inflicted punishment on such flimsy grounds. Eilers was born in Heligoland as a British subject, and afterwards went to the United States, where he became naturalised. While on a visit to his birthplace he met a stranger who offered him £5 for sketches of certain battery positions. This stranger was in all probability one of the German Government's *agents provocateurs*, who at this period were notoriously active in all the dockyard centres and fortified zones.

On July 2 a German subject named Ewald was apprehended at Kiel on a charge of trafficking in naval signal books. Later in the same month three other Germans were taken up on suspicion of espionage, and about this time there occurred the daring burglary at the artillery depôt of Spandau. Two or more men, believed to be foreign agents, broke into the drawing

office and purloined over a hundred blueprints of the latest gun models, together with parts of the actual guns. In spite of an intensive police hunt which lasted for months the audacious burglars were never caught.

An incident which threatened to cause international complications was reported on June 22, when Captain Kostevitsch, belonging to a Russian regiment of guards, was arrested in Berlin on a charge of espionage. A few days afterwards another Russian officer known as Nikolski was taken into custody at Düsseldorf, where he had been employed for five years in the Ehrhardt gun factory. According to the German police, he had worked in the factory for purposes of espionage, and was acting as an agent for Kostevitsch. The latter had been given three months' leave from the Artillery Department of the Russian War Office, with instructions to visit various State factories in Germany, especially those where explosives were made. Permission to make these visits was applied for through official channels, but was refused, so Kostevitsch had apparently conducted his inquiries under the rose.

Although the Russian authorities formally disavowed responsibility for his actions in Germany, the Russian Embassy in Berlin was instructed to apply for his immediate release. When this was refused they played another card by arresting at Alexandrovno on June 27 a German artillery officer, Lieutenant Dahm, whom they charged with spying at Odessa and Warsaw. This arrest caused much indignation in Germany, where it was regarded as a reprisal, though news from Russia left little room for doubt as to the German officer's guilt.

The sequel came in the following November, when Captain Kostevitsch, having been sentenced at Leipzig

to two years' detention in a fortress, was released immediately afterwards in exchange for Lieutenant Dahm. The Russians had won the trick, for Kostevitsch was, in fact, an important member of their Secret Service whom they could ill spare. Dahm was a much less dangerous person, but unfortunately for his superiors in Berlin there had been found upon him documents which clearly proved his connection with the German military Intelligence Bureau.

Another curious case received a brief publicity in July 1912, and was then hushed up. A German lady of some position in Danzig was arrested with her son. An inspired communiqué in the Press foreshadowed a *cause célèbre* of espionage which would implicate "high officials." Almost at once, however, the prisoners were released, but they were seen no more in Danzig. It was freely rumoured at the time that the formidable Maximilian Harden had interested himself in the case, and was preparing to print sensational revelations in *Die Zukunft*—the one German periodical of which the Government stood in real dread. The lady, it was hinted, had been the mistress of a distinguished naval officer, who had talked to her a little too freely about his profession, never dreaming that accurate transcripts of what he had said were finding their way to Russian intelligence headquarters.

The cases referred to in this chapter were only a few among the many espionage affairs which kept Germany in a ferment during 1912, and, incidentally, smoothed the passage of Admiral von Tirpitz's Navy Bill through the Reichstag. But while an ample supply of domestic traitors was forthcoming to speed the good work, the haul of foreign "spies" was exasperatingly meagre. Scarcely any walked into the

numerous traps that awaited them, and the few that did prove to be so harmless that even the none too scrupulous methods of the German police failed to build up a plausible case against them.

The only affair of this kind in 1912 which attracted any notice in England was that of the *Silver Crescent*. It was announced on August 4 that five Englishmen—the German Press forthwith dubbed them “spies”—had been arrested at Eckernförde, near Kiel, on a charge of espionage. They had arrived in Eckernförde Bay on August 2 in their yacht, the *Silver Crescent*, an auxiliary fishing yawl, which had passed through the Kiel Canal. The fact of their being British yachtsmen was quite enough to fix suspicion upon them, and an alleged breach of the Customs regulations served as a pretext for detaining them ashore while detectives searched their craft.

A collection of photographs, plates, and drawings was discovered, whereupon the five suspects were formally arrested and conveyed to Kiel. The German papers at once set about the congenial task of manufacturing evidence. One stated that the photographs were of “all the harbours, fortifications, and bays of the Schleswig-Holstein coast, including Kiel.” Another journal, the *Deutsche Tageszeitung*, which ranked as a responsible organ, went to the length of asserting that “there have been found among the drawings accurate soundings of the whole North Sea coast”! These staggering revelations seemed to presage the discovery of a conspiracy of unheard-of magnitude, which would establish once and for all the deadly nature of the British Admiralty’s plot to undermine the defences of the Fatherland.

Who, then, were these desperate adventurers who

had sailed so boldly into a German naval port to penetrate its secrets? They were:

Dr. D. M. Stone, house surgeon at the Metropolitan Hospital, Kingsland Road, London.

Dr. Norcliffe Roberts, alienist of the L.C.C. asylums in Surrey.

Mr. Lancelot Hull Sheffield, a member of a well-known firm of London solicitors.

Mr. W. R. Macdonald, a consulting engineer, and

Mr. Gregory Robinson, a marine painter, of Hamble, Southampton.

It is hardly necessary to say that the accusation of espionage was entirely baseless. When naval experts at Kiel had examined the photographs, drawings, and memoranda seized in the *Silver Crescent* they pronounced them "ganz harmlos"—"quite harmless," and as there was no other evidence against the five yachtsmen they had perforce to be released after spending four days in confinement. Not a word of apology was offered for their arbitrary arrest and detention.

On returning to England Mr. Gregory Robinson gave some further details of the affair in an interview. He and his companions, he stated, had given not the slightest ground for suspicion. The fact which told against them most was that they took eighteen hours to reach Kiel harbour through the canal. The regulation time occupied in travelling the distance covered was ten hours, but the delay was caused by their engine breaking down. The circumstance that one member of the party had left for England the day before the arrest also excited suspicion. On the whole, said Mr. Robinson, he and his companions had been well treated by the German prison officials. All their

effects, including photographs and sketches, were returned to them on their release.

An analysis of the score or more of espionage cases reported from Germany in 1912 only serves to strengthen the impression that most of them were trivial affairs which were exploited for political purposes. Many were built up on evidence too flimsy to secure a conviction before any impartial tribunal, but it was never seriously pretended that the German courts which dealt with such cases were impartial.

With the possible exception of the Schultz affair, the only one of the series of which the German authorities themselves appear to have taken a very grave view was that of the non-commissioned officer Wölferling, who was convicted at Thorn of betraying military secrets to Russia. The circumstances in this case were undoubtedly most serious. Thorn fortress was one of the vital points of Germany's eastern frontier defences, and Wölferling was proved to have been communicating details of its armament, its concealed works, and its garrison to the Russian Intelligence Bureau over a term of years.

His treachery received the punishment it merited. He was sentenced to fifteen years' penal servitude and a fine of £750, and, in addition, the State confiscated his bank deposits at Thorn, which amounted to £3,750. On his own admission he had been paid lavishly by the Russians, who never stinted money for secret information which was truly valuable.

The Wölferling trial evoked from the German Press a storm of abuse against Russia for maintaining a host of spies in Germany, but this tempest suddenly subsided when the St. Petersburg *Novoe Vremya* retorted that Germany's military Secret Service fund was three times larger than the Russian, and that more than

thirty German spies, all known to the Russian police, were at that very moment actively at work in the Tsar's dominions. The *Novoe Vremya* challenged its German contemporaries to refute this positive statement, but the challenge was not accepted.

CHAPTER VIII

GERMAN SPIES IN ENGLAND: THE ACADEMY OF ESPIONAGE

THOROUGHNESS is a virtue on which the German nation prides itself, not without reason. They undoubtedly possess that infinite capacity for taking pains which has been defined, somewhat superficially, as genius, and in no sphere was it more manifest than in their preparations for the Great War. Their fighting material was, with rare exceptions, of the best; their staff work was on the whole exemplary, and their methods of army and navy training long withstood the severest test.

It was in the not unimportant province of Intelligence work that German thoroughness and efficiency were least in evidence. In pre-war days Germany's Secret Service methods often excited the derision of foreign experts. Crude and amateurish to a degree, the results they produced were in no way commensurate with the heavy expenditure they entailed.

I have been assured on excellent authority that ninety per cent. of the reports drawn up by the twenty-two permanent secret agents whom Germany maintained in Great Britain before the war not only contained no information of the slightest value, but betrayed an ignorance of naval and military affairs that would have disgraced an intelligent schoolboy. Since most, if not all, of these reports came under the scrutiny of the British Security Service before they were

allowed to reach Berlin, our authorities were in the best position to estimate their value.¹

Here is part of a typical report. It was written in 1912 by a German agent who was drawing a comparatively handsome stipend from the German Secret Service fund:—

“Harwich, June 8.—There has been great activity here among the destroyers. Yesterday one flotilla put to sea at dawn and did not return until midnight. I hear that it carried out secret torpedo firing. Another flotilla has been out exercising to-day. The leading boat has two bands on the foremost funnel and appears to be armed with two 10·1 centimetre guns and four torpedo tubes. There are rumours that the local destroyer flotillas are to be reinforced by new boats, owing to the growing strategic importance of Harwich *vis-à-vis* the German position in the Ems. Harwich is also visited often by minelayers. These are old converted cruisers. There are said to be 5,000 mines in Sheerness Dockyard, all of a new and very secret type. At Sheerness on June 5th the battleship *Agamemnon* was seen. Her organisation has been changed, and she now has a complement of 870. By British naval men she is regarded as superior in war value to the Dreadnought.”

The above may be accepted as typical of the puerilities which passed for “secret information.” It is sometimes asked why, if the British authorities knew the name, address, and occupation of every professional German spy in this country for three years before the war, these gentry were not promptly placed under lock and key.

¹ Thanks to the detection by our Security Service in 1911 of the “clearing house” in London through which the German spies working in Great Britain sent their reports, the British Intelligence authorities were able to open and examine this correspondence.

The answer is supplied by the report from which I have quoted. So long as the Berlin Intelligence Department was satisfied with this brand of pabulum, there was no reason for us to interfere with the supply. Now and again, it is true, an item of really confidential information did find its way into the reports. Whenever that happened the intercepted despatch was skilfully sub-edited before being restored to the mails, and it is to be feared that the recipient was not enlightened to the extent intended by his correspondent.

There were times, too, when these German agents were used for the transmission of news which we particularly wanted the Berlin Admiralty to digest. If we were planning a new type of battleship or cruiser we knew from experience that it would be useless to conceal the bare fact from the foreign Intelligence departments. No British warship was ever designed in greater secrecy than H.M.S. *Dreadnought*, yet even before her keel was laid intelligent forecasts of her main features were published in British journals.

This, incidentally, was one of the penalties that Lord Fisher had to pay for mobilising so many journalists in support of his far-reaching naval plans. No other First Sea Lord ever encouraged publicity to the same extent, and never before nor since has there been such a spate of "copy" from the Admiralty. But with a horde of trained news-gatherers besieging the lobbies of the Admiralty there was inevitably a leakage of confidential information, and the premature disclosure of the *Dreadnought's* secrets was but one case among many.

But though the hunt was up it was always possible to draw a red herring across the trail, and this was done on the present occasion. It is common knowledge that many alternative plans were considered

before the characteristics of the first all-big-gun ship were finally approved. One plan provided for an armament of twelve 12-in. guns in six turrets spaced in hexagon fashion: that is, one turret at bow and stern and two on each broadside. This arrangement, which had many partisans, was eventually discarded in favour of five turrets, of which three were on the centre-line and one on each broadside. But detailed drawings of the hexagonal turret disposition had been prepared, and these were allowed to fall into the hands of a German agent. It is certainly a significant coincidence that the first eight all-big-gun ships built in Germany should have had six turrets spaced in accordance with the rejected *Dreadnought* design. The suggestion that the German naval authorities were ever hoodwinked by spurious plans of British ships has been vehemently denied by them since the war, but in spite of this disclaimer the facts are very suggestive.

Even when the German Intelligence people did find a well-informed agent they failed to profit by his services. For example, Gunner Parrott might have proved a star performer had he been properly coached. But on the one occasion when they succeeded in inducing a member of the British Navy to work for them, they made no practical use of his knowledge, and Parrott never really earned the money he received from his German paymasters, though apparently quite willing to do so.

At the time of his downfall George Charles Parrott was a warrant officer of the Royal Navy. He was regarded by his superiors as an efficient and trustworthy officer, and as his pay and allowances totalled £260 a year there was no visible reason for his defection. In July 1912 he was in charge of the rifle range at Sheerness, having previously served in the battleship

Agamemnon. When this vessel was under construction on the Clyde he had helped to superintend the installation of her armament, of which, therefore, he possessed an intimate knowledge. As the guns and mountings of this ship were identical with those of the first batch of Dreadnoughts, Parrott was undoubtedly in a position to supply important technical information.

On July 11, 1912, he applied for leave of absence, stating that he was going to Devonport. His request being granted he despatched a telegram to Berlin, not from Sheerness, where he lived, but from Sittingbourne. It read: "Coming eight o'clock Saturday," and was signed "Seymour." On the 13th he travelled to Dover—accompanied part of the way by a lady—and was about to embark on the Ostend steamer when he was accosted by a detective. When questioned Parrott gave his true name but declared himself a civilian. He was then searched, and a naval signal form was found in his pocket. He then admitted that he was in the Navy. An appointment with a lady was the pretext he gave for wishing to visit Ostend. He was not detained, but the fact that he had been interrogated by the police ought to have warned him that he was on thin ice, and a wiser man would have dropped the sinister business forthwith.

But Parrott, despite his good record in the Navy, was innately stupid, as his subsequent actions testified. Instead of returning home he embarked for Ostend, apparently never dreaming that he would be shadowed. But a Scotland Yard man followed him on board and kept him in sight for the rest of the trip. When the steamer reached Ostend, Parrott went ashore and was at once approached by a man, with whom he walked away. The pair remained together for several hours; then the stranger abruptly left his companion and Parrott

returned to the steamer, which sailed for Dover at 11 p.m.

The next day he walked into Sheerness Dockyard in uniform. Asked to give in writing his reason for leaving England without permission, he stated that it was to visit a young lady. But the detective who had shadowed him to Ostend had already reported that Parrott had not spoken to any woman during the trip. Early in August an official investigation was held, in the course of which Parrott again made false statements about his journey. On August 14 he was dismissed from the Navy. In view of all the circumstances he was extremely fortunate in escaping prosecution on a grave charge there and then.

But no warning availed to turn the infatuated man from his criminal folly. Two months later he was receiving mysterious letters from Berlin under an assumed name—"G. Couch"—at an accommodation address in the King's Road, Chelsea, and on November 16 he was arrested with one in his hand. It was found to contain two £5 notes which were traced as having circulated in Germany. The envelope bore the postmark "London, E.," the inference being that it had been posted from Germany to a go-between in London and by him relayed to Parrott. The letter is worth quoting for the light it sheds on the mentality of the German Secret Service:

"DEAR MR. COUCH,—I am very much obliged to you for your prompt reply to my last letter. May I beg to place in your hands some questions in addition to my last letter? Have the kindness to leave as soon as possible for the Firth of Forth, ascertaining about the following:—Which parts of the Fleet are in or off the Firth of Forth since

November 5? Only the vessels of the 1st and 8th Destroyer Flotillas, or which other men-of-war of any kind else? Where is the 2nd Destroyer Flotilla now? Have there been mobilising tests of the flotillas and coast defences in the Firth of Forth? What are the flotillas doing or proposing now? What number of Royal Fleet Reserve, Class A, are called in now for the yearly exercise? Where do they exercise? Are any of these men kept longer than a fortnight? . . . I beg you to keep yourself ready if possible also in the near future to run over immediately to any place as soon as rumours as to extraordinary preparations of material and personnel are running. . . .”

Most if not all of the information asked for in this letter could have been obtained from Service periodicals—e.g. the *Naval and Military Record*, which published each week the movements and whereabouts of all Fleet units in home waters. Neither in this letter nor in any of the other documents produced at Parrott's trial was there a single question the answer to which would have given the Germans really useful news. The questionnaires addressed to him appear to have been drawn up by people with only a rudimentary knowledge of naval affairs. They were, indeed, worthy of the egregious Steinhauer, “the Kaiser's master spy,” whom the youngest boy in H.M.S. *St. Vincent* could instruct in naval technicalities.

I need not go further into Parrott's sordid story. Tried at the Old Bailey in January 1913, he was found guilty and sentenced to four years' penal servitude. It came out at the trial that he had made several other visits to the Continent, though he persisted that his journeys were to meet a fair charmer and had nothing

to do with espionage. That a woman did figure in the case was known to the authorities, but although a foreigner she lived much nearer Sheerness than Ostend, and there is reason to believe that a jealous husband was the first to throw suspicion on Parrott. In passing sentence Mr. Justice Darling said:

“I have little doubt that you were entrapped by a woman, who was nothing but an agent of some foreign persons. Because I believe that, I think I may show you some sort of leniency, but it cannot be much—the crime is too great. I have one other thing to say. If you desire to have the sentence reduced or any part of it remitted, let me advise you: tell the authorities all you know, enable them to trace out the source from which the danger to this country comes, make that much reparation to your country, and as far as I can do so I will use any influence I have to procure you some remission of your sentence.”

Whether Parrott availed himself of this hint is not known, though it is improbable that he could have told the British Security Service much more than they already knew about the German espionage system so far as it related to this country.

Six months before the Parrott affair another German agent was brought to book. This was Armgaard Karl Graves, who was tried at Glasgow on July 22, 1912. For some reason the German authorities went to special pains to repudiate any connection with this person, but the evidence that he was in their employ was overwhelming. Possibly they were embarrassed by the revelation of his theatrical and futile methods—methods, indeed, which were common to most of the secret agents they had in Great Britain.

According to the indictment, "the accused, between January 21 and April 13, 1912, made or obtained a note in German, being a telegraphic code, for the purpose of communicating information relative to his Majesty's Navy and land fortifications, and also made a note with reference to guns under construction for his Majesty by Wm. Beardmore & Co., Parkhead Steel Works, Glasgow; and that these notes and documents were calculated and intended to be useful to an enemy."

Graves affected a jaunty mien during the trial and at first insisted on conducting his own case, but eventually he asked for and readily obtained the assistance of counsel. A man in the mid-thirties, he wore spectacles and looked the typical German professor.

At the time of his arrest on April 14 he had in his hand a book on the Forth Bridge, showing Rosyth naval base and the surrounding district. When the police searched his possessions they found a number of phials filled with deadly poisons, a hypodermic syringe and needles, maps of Scotland, a number of rifle cartridges, and notepaper with the heading of Burroughs, Wellcome & Co., chemists, of London. This notepaper proved to be a forgery. Graves was unable to give any satisfactory explanation of these articles. He had been using the alias of "James Stafford."

Important evidence was given by Rear-Admiral T. R. S. Adair, R.N., who was superintending work at Beardmore's ordnance factory. This officer had deciphered the codes found in Graves' possession. One consisted of figures representing such phrases as "current rumours," "clearing for action," "have lowered defending nets," "land fortifications and men," "preparations are being made," "remarkable influx of reservists," "minefields laid," "all quiet, nothing

doing," and the names of battleships, cruisers, and destroyers, as well as of Scapa Flow, Cromarty, and Moray Firth. A second document, written in German, contained details of guns made by Beardmore & Co.

Graves claimed to hold a medical degree. Shortly before his arrest he had applied for a post as *locum tenens* to Dr. James Mackay, of Leith. He was, however, not engaged, Dr. Mackay wisely holding that the applicant's pronounced German accent "would not go in Leith." The code used for telegrams between the prisoner and his correspondent on the Continent was a complex one. The ciphers transmitted were not to be read as received, but the figure 271 was to be deducted from the total of the group before reading it in connection with the key. Practically the whole substance of the telegrams traced to Graves was sent in code, only one or two words being *en clair*.

According to the prosecution, the code was "a very deadly document to be found in the possession of the prisoner"—particularly, it might have been added, in view of his attempt to establish himself at Leith. If, said the Solicitor-General, the person using the code were in a certain place on a certain day, and found that, for instance, mines were being laid, he would telegraph the figures 11719 to 11729. Information of this kind, wired without delay, would unquestionably be of great value to an enemy.

Code telegrams were despatched by accused to a Lewis V. Noens, at Brussels, and replies were received by him from Rotterdam. In each of these two centres, it may be mentioned, there were notorious spy bureaus, that at Rotterdam working exclusively in the interests of Germany. Although such telegrams as were intercepted were found when decoded to contain no military intelligence, their purport made it plain that

Graves and his correspondents abroad were engaged in subterranean activities the nature of which could not be in doubt.

The prisoner was found guilty, but he was treated with extraordinary leniency, the Lord Justice-Clerk remarking that he was not inclined to impose penal servitude, "although many such sentences have been pronounced in other countries." So Graves escaped with the light sentence of eighteen months' imprisonment. A British subject arrested in Germany under corresponding circumstances would have been lucky to get off with seven years' penal servitude.

Graves, as I have indicated, was a somewhat theatrical person. On hearing his sentence he turned to one of the warders and exclaimed dramatically, "Exit Armgaard Karl Graves! Well, it has been a fair trial." And indeed it had. All through the proceedings the prisoner was treated with a tenderness which led many of those present to suspect that there were features of the case that had not been disclosed. What those features were, presuming them to exist at all, can only be surmised. On the face of it Graves had endeavoured to establish himself as a German spy in the vicinity of a most important naval base; he was using a code which was much favoured at the time by other German agents in Great Britain, and he was in direct communication with an individual who was known to be one of the controllers of German espionage.

From the moment of his arrest Graves adopted the pose of a simpleton, and this, no doubt, stood him in good stead. Perhaps it was not altogether a pose, for his actions, even when he did not know he was under observation, were eccentric to a degree, and the collection of "properties" found in his possession would scarcely have been acquired by a rational

person. On the other hand, he was not without guile. He was the only German agent who ever indicated Scapa Flow as the probable war base of the British fleet.

It is quite true that the Orcadian anchorage had been freely mentioned in public, but the Germans never believed it to be intended for use as a main base. Only a few weeks before the war the German naval staff regarded the Firth of Forth as the predestined headquarters of the British battle fleet in war, with Cromarty as an advanced position. The activities at Scapa Flow, and the publicity they received, were interpreted in Berlin as deliberate camouflage for Germany's benefit.

It was not until July 1913 that any serious attempt was made to repair the glaring defects in the German system of naval espionage. By that time it had apparently occurred to the heads of the Navy that the intelligence they were receiving from Great Britain was almost valueless. It is astonishing that the discovery was so long delayed. As I have already said, the great majority of the reports received from their agents in this country were composed either of unconfirmed rumours, stale information rehashed from news which had previously been published in the Press, or downright misstatements of fact. These were often supplemented by diagrams of dubious origin, and technical details of ships, guns, etc., which were circumstantial enough in themselves but usually conflicted with similar information already on file.

Grand-Admiral von Tirpitz is said to have expressed himself very forcibly in regard to German Intelligence work on the naval side, contrasting it with the admittedly brilliant results secured by German agents engaged in military espionage in France and Russia. In conse-

quence of these criticisms a training academy for naval spies was instituted in Berlin. The intention was that graduates of this school should eventually replace the unskilled agents who had hitherto been operating in Great Britain, but as it was founded less than a year before the war, the time was probably too short for the exchange to be made, or at any rate for the anticipated results to make themselves felt.

Students for the course in naval espionage were selected from among Germans who had legitimate business associations with England which would enable them to reside there without evoking comment. An absolute command of the English language was an essential qualification, but as the test for this took place before a board of German professors it is not surprising that more than one candidate whose English accent was by no means impeccable was able to pass with honours. Nothing would have been easier than to have had the language test made, on some plausible pretext, by Englishmen—but that was not the German way.

Included in the curriculum were the following subjects: the identification of British and other men-of-war, elementary tuition in naval construction, ordnance, torpedoes, and mines; the reading of charts; the drawing of maps and technical diagrams, photography, secret inks, and memory tests. Each student was furnished with a book of naval terms and their English synonyms, including slang phrases, to enable him, when he had mastered the new jargon, to follow intelligently any conversation he might overhear between British naval men. One ventures to doubt, however, whether the most painstaking student of this glossary would have made head or tail of any discussion conducted in lower-deck "navalese."

The outbreak of war led to a marked increase in the number of students at this singular academy. Among those who graduated from it after an intensive course of instruction were Anton K pferle and Fernando Buschmann. Both were subsequently arrested while spying in England, but whereas Buschmann was executed in the Tower of London, the former cheated the firing squad by hanging himself in his cell in Brixton prison. Thanks to the efficiency of the British Security Service both these men came under observation a few days after they had landed in England, so that neither had much chance to display his prowess as an Intelligence agent. But from an examination of their papers it did not appear that either had benefited greatly from his studies at the school for spies. Some notes on British warships which he had seen, found in K pferle's possession, were inaccurate in important details.

A description of the school and its methods, by a former student, was published in a Warsaw journal in 1922. It was situated on the top floor of a building in the Wilhelmstrasse, Berlin, and consisted of five rooms. The principal was a retired commander of the Imperial Navy, and his staff included two other naval officers, a warrant officer, and several civilian experts from the German Admiralty. On the walls of one room were photographs of well-known detectives of Scotland Yard. Other rooms were decorated with diagrams of typical British, French, and Russian warships, plans of ship interiors, guns, gun turrets, torpedoes, etc.

Work began at 9 a.m. and continued till 7 p.m., with intervals for meals.

In the early part of 1915 the average attendance was fifteen students. With one exception—a Pole—they

were all Germans, several of whom had spent many years in the United States and spoke English with a strong American accent. There were two or three mercantile marine officers, but the majority of the students were commercial men. Each was known by a numeral, and it was strictly forbidden to question a man as to his name or address. "Nevertheless," says the writer, "most of us knew each other's names and we freely exchanged confidences outside the school."

Every student had to memorise the names, types, and principal characteristics of all important ships in the British Navy. When these details had been mastered the silhouettes of ships would be thrown on a screen for a few seconds and students were required to identify them. Correct answers were the exception, and even at the end of the course few of the students were able to distinguish one ship from another. Special importance was attached to this branch of instruction, as the British were known to have many "dummy" warships at sea, and if these were mistaken for genuine men-of-war and reported as such to the German naval command serious consequences might ensue.

There was an electro-technical department in the school, where students were shown the principal wiring system in a battleship or cruiser, and how it could be disorganised by severing certain vital leads. Instruction was given also in the art of make-up, though elaborate disguises were discouraged, and there were constant examinations in "deportment," that is to say, correct behaviour in a sudden emergency, such as a challenge by a British detective. "Kaltblütigkeit"—sang-froid—under all circumstances was stressed as the supreme virtue of an Intelligence agent. One wonders, however, whether all this careful tuition in the proper deportment for a spy in

the enemy's country enabled K pferle, Buschmann, and others of their trade to retain their composure when fate in the form of a Scotland Yard detective tapped them on the shoulder.

According to the writer of the article, only one out of three students passed the final tests, to determine whether they should be appointed to the Secret Service. Those that passed were transferred to Kiel or Wilhelms-haven for a course of advanced instruction, the nature of which is not specified. Unsuccessful students were told that their services would not be required, and were then dismissed with a warning to maintain absolute reticence with regard to the training they had received. Betrayal of the secret meant death, they were reminded.

Much of the information conveyed in the article which I have summarised may be accepted as authentic, since it tallies closely with what has been heard from other sources about the Berlin school for spies. During the war there was a similar institution in Paris, but it appears to have been run on lines that were at once more practical and more imaginative than the German school, and it contributed not a few "aces" to the French Intelligence Service.

CHAPTER IX

THE SAILOR FROM ALSACE: HOW A SPY SIGNED HIS DEATH-WARRANT

LESS than twelve months before the Great War the world was startled by an exhibition of Prussianism in its worst form. The incidents which took place in Alsace during November and December 1913 had a significance which does not appear to have been fully appreciated at the time. They were a revelation of the spirit of arrogance and frightfulness which permeated the Prussian military system, and they clearly foreshadowed the ruthless methods it would employ against those who dared to oppose it on a larger scale.

In 1913 Prussia was ruled by the military caste, and since Prussia, despite the nominal independence of Saxony, Bavaria and Württemberg, held the reins of power in the Confederation, it is not an exaggeration to say that Germany as a whole was governed on Prussian military lines. This fact goes far to explain the crude and overbearing nature of her foreign policy, which for years before the war had been a constant threat to the peace of the world.

In her domestic as in her external affairs she rode roughshod over the rights of the weak. Her subjects of alien blood, the Poles, the Danes and, above all, the French of Alsace-Lorraine, were ruled with an iron hand. Germany aspired to become a great colonial Power, yet she never learned to govern her own people except by the methods of the barrack-

yard. The spiked helmet, the sabre, and the jackboot remained to her the true symbols of sovereignty.

In modern parlance Lieutenant von Forstner, of the 99th Infantry Regiment, would have described himself as a "hundred per cent. Prussian." On many occasions, though in other words, he boasted as much. To be a Prussian officer was, in his opinion, to be a superman, one raised far above the common ruck of humanity. He viewed all civilians with contempt, even those of his own stock. What he thought of those who did not enjoy the inestimable privilege of German extraction is best shown by his words and actions.

On November 10, 1913, a riot broke out at Zabern, an Alsatian town lying between Strasbourg and Metz. A day or two earlier Lieutenant von Forstner, whose regiment formed part of the local garrison, had told a recruit that if he used his bayonet against a "Wacke"—a derogatory slang expression for a native of Alsace—he need not fear punishment; on the contrary, the lieutenant would reward him with half-a-sovereign. A German sergeant, wishful to curry favour with his superior officer, promised to increase the reward by three shillings.

The recruit, of course, did not keep the good news to himself, and it was speedily known all over the town. Local papers took the matter up as a gross insult to the whole population of Alsace, as indeed it was. When the military authorities refused to issue either a denial or a correction of the story, popular feeling ran high in Zabern. Some days later a large crowd gathered in front of a house where von Forstner was paying a visit, and became so menacing that he telephoned for protection. Two soldiers with

loaded rifles were sent to escort the hero back to barracks.

Towards evening the crowd swelled to over a thousand. It jeered and hooted at the sight of a uniform, and threatened to lynch von Forstner. Firemen called out to disperse the mob only directed their hoses in the air. Finally, it became necessary to bring up a company of soldiers, whose levelled rifles caused the people to scatter. Bloodshed was averted on this occasion, but a German N.C.O. was waylaid in the street and badly mauled by the infuriated citizens.

Great excitement continued to prevail in Alsace, and public indignation was not allayed by the misleading version of the affair which the Prussian Minister for War gave in the Reichstag on November 28. In effect he upheld Lieutenant von Forstner's action, and put all the blame on the people of Zabern.

The next incident was a street quarrel between some Alsatian students and a group of German officers. Lieutenant Schadt, who was on duty at the barracks, ordered out the guard and arrested several civilians. As the disturbance still continued, Colonel von Reuter, commanding the 99th Regiment, drew up sixty men in the public square and told them to fire on all civilians who refused to move on. Arrests were carried out indiscriminately, several lawyers who were just leaving the court with the judge being among those taken into custody. When the prisoners were brought before the magistrates next day they were at once discharged. Threats of a general strike against "the military dictatorship in Alsace-Lorraine" were heard.

By this time the situation was, in the words of a Berlin journal, "monopolising the attention of the German Empire to such an extent that the Reichstag

has suspended its ordinary business." It was only too clear that subjects of the Kaiser were being dragooned and persecuted without adequate cause. Even the true-blue German civilian, with all his veneration for the Kaiser's uniform, felt a sneaking sympathy for the hapless Alsatians who feared to leave their dwellings lest they should be seized by the military and hustled off to jail.

But the arrogance of the soldiers was not yet curbed. At Metz, on December 1, a man and his wife were arrested because the woman had laughed at a passing military patrol. After this it was felt to be dangerous even to look at a soldier. On the same day another and graver incident occurred at Dettweiler, a village some five miles from Zabern, through which the notorious Lieutenant von Forstner happened to be passing at the head of his company. He was recognised by some workmen, who, according to his own account, greeted him with cries of derision. Ordering his men to halt, he attempted to capture the miscreants, but the latter fled in all directions.

Fuming with rage von Forstner looked about for a victim, and his eye fell on a cobbler named Blank, who happened to be a cripple. He was immediately seized by Second-Lieutenant Wies, but in spite of a lame leg he resisted arrest "with all his strength"—to quote the official report. Von Forstner, now beside himself with fury, drew his sword and cut savagely at the cobbler's bare head, inflicting an ugly wound. Bleeding freely and half-conscious, the wretched man was dragged into the Burgomaster's office and there subjected by his captors to a "third degree" interrogation for two hours, while armed sentries were posted at the door.

The Burgomaster of Dettweiler, who was an eyewitness of the whole affair, flatly contradicted von Forstner's story, and declared that it was only some children who had jeered at the officer. Blank, the lame cobbler, had neither said nor done anything to provoke him. On the other hand, added the Burgomaster, the people were greatly excited by the conduct of the soldiers, who every morning marched through the village calling out insulting remarks.

This cowardly assault by a Prussian officer on a harmless cripple brought matters to a head. All over Germany there was a demand by the liberal Press for an impartial inquiry into the troubles in Alsace. A debate in the Reichstag on December 4 led to noisy scenes. The Government refused to make any concession, and the Minister for War, General von Falkenhayn, made a haughty speech in defence of the army, which, he implied, was above the law in that it would not tolerate dictation from any civilian source, however eminent. Next day a vote of censure was passed on the Imperial Chancellor because he was held to have "capitulated to the Emperor's military Cabinet."

But by this time the soldiers knew they had gone too far. On December 8 the 99th Regiment (von Forstner's) was withdrawn from Zabern, though as a parting shot three of its Alsatian recruits were sentenced by court-martial to imprisonment for having published in the local papers a signed statement as to von Forstner's provocative language.

Meanwhile public opinion, which even in pre-war Germany must have carried some weight, had been pressing for disciplinary action against this officer, whose bad temper and bullying manner had caused a

political crisis. Accordingly, on December 19, he was brought before a military court at Strasbourg, charged with assault and wounding, and the unlawful employment of weapons. He gave his age as twenty, and proudly declared that he belonged to a family of soldiers. His evidence threw a blaze of light on the working of a Prussian militarist's mind.

When asked why he had felt justified in arresting Blank, he replied: "We have got to act energetically against every sort of abuse and insult on the part of civilians." And in reply to a question whether he had received any special orders on this subject, he said: "We were ordered not to stand any insults on the part of the civilian population. A number of orders had been issued from the office of the commanding General, and also from the regiment, that we were to act vigorously and stand no nonsense."

Colonel von Reuter, commanding the 99th Regiment, was then called. He said he had heard that officers of his regiment, and Lieutenant von Forstner in particular, had been insulted in the street. Local papers had published statements for which there was no foundation. "Dirty" anonymous letters had been received by himself and von Forstner. In these circumstances he had instructed his officers to act with all possible energy, and as Lieutenant von Forstner had been insulted in a peculiar degree he had advised him always to carry his pistol and, in case of need, to use either his pistol or his sword.

These weapons, it is to be noted, were to be used not against Germany's enemies, but against German citizens living on German soil. The incongruity of the orders he gave seems never to have occurred to

the mediæval mind of this typical Prussian Junker. His further evidence was still more illuminating.

"I had told my officers," he proceeded, "that they stood the risk of being brought before a court of honour if, at the appropriate moment, they failed to act as I had ordered them to do. I also told my N.C.O.'s and men that if they were attacked they were to make energetic use of their weapons and, if necessary, 'to bring down' their assailants."

This might fairly be interpreted as an order to shoot or bayonet to death any civilian, preferably Alsatian, who had the temerity to resist or even, perhaps, to look askance at the sacred uniform. Colonel von Reuter added that he had informed the Burgomaster of Zabern of his instructions to his officers "to compel respect in all circumstances." Apparently, therefore, the suppression of disorder was quite a minor consideration. It was chiefly to uphold the dignity of the army that rifles and bayonets were to be energetically used.

In the course of the trial evidence was given that Blank, the crippled cobbler, had never attempted to attack anyone. It was also testified that the soldiers, as they marched through the village, were singing an indecent ditty at the top of their voices.

Much to the disgust of the military die-hards, von Forstner was found guilty and sentenced to forty-three days' imprisonment. The prison sentence was made necessary by the conviction of wounding; otherwise, he would have received the mild penalty of detention in a fortress, which carries no stigma. As it was, he had to leave the army.

As a further sidelight on Junker mentality a letter by Herr von Jagow, the then Police President of

Berlin, deserves notice. On December 22, 1913, he wrote to the *Kreuz Zeitung*, protesting against Lieutenant von Forstner's conviction and sentence on the following grounds:

"Military exercises are acts of sovereignty, and if obstacles are placed in their way, as at Dettweiler, the obstacles must be removed in the execution of this act of sovereignty. Prosecution on account of an act of sovereignty is not permissible according to an obvious principle of law, which in Prussia is expressly defined. Lieutenant von Forstner, therefore, ought not to have been prosecuted, much less convicted, and, if the position in law were different, the law itself would require the most speedy amendment. If our officers, and even those who are stationed almost in an enemy's country, run the risk of *custodia inhonesta* because they clear the road for the execution of the King's services, shame is brought upon the most distinguished profession."

Herr von Jagow himself certainly lived up to his doctrine of the divinity of the Prussian uniform and the non-existence of civilian rights, for his long term of office as police chief of Berlin was a veritable reign of terror for the docile citizens of that capital.

Such, then, is the story of the cobbler of Zabern, who thanks to the brutality of a young Prussian jack-in-office became an international figure. But to this story there is a most dramatic sequel which has not hitherto been made public. It shows that Germany had to pay dearly for that act of violence on the part of Lieutenant von Forstner.

At the time of the events described above a young Alsatian from Strasbourg was staying with relatives in the country. Ludwig Franz—that was not his real name—was a quiet, studious youth who was expecting

to be called up for his military service. His father was a native of Alsace, but his mother was a Frenchwoman passionately attached to the country of her birth. She detested the Prussians, and hardly troubled to conceal the fact. There is little doubt that she was the dominant influence in her son's life.

Young Franz happened to be in Dettweiler when the cobbler was arrested; in fact, he appears to have narrowly escaped the same fate, for he was in the group of people that scattered when von Forstner ordered his men to "lay hold of those damned scoundrels." He saw the wretched cripple cut down wantonly by the officer, and dragged bleeding into the Burgomaster's office, while soldiers with fixed bayonets stood on guard before the entrance. With other fugitives he sought shelter in one of the village taverns, and probably joined in the curses which filled the room. For in Dettweiler and the surrounding country that day popular feeling ran so high that it would have been dangerous for any uniformed Prussian to venture out alone.

If Ludwig Franz, thanks to his mother's teaching, had chafed under the Prussian yoke before, he was now transformed into an implacable enemy of the State to which by law he owed allegiance. There is some evidence that on his return to Strasbourg he sought acquaintance with certain people whom the police suspected of being French secret agents. Be that as it may, he was soon called up for service, and on choosing the navy in preference to the army he was sent to Wilhelmshaven for training.

There, no doubt, he had some further unpleasant experience of Prussian methods, for the warrant and petty officers of the navy did not believe in coddling

raw recruits, to whom kicks and blows formed part of the training routine. In the last few years before the war numerous cases of gross brutality to young seamen were ventilated in the German Press.

In September 1914, Franz was posted to the Naval Corps which was being organised for garrison and field service in Flanders. He spent several months at Bruges, and it was here that he must have made his first contact with the Allied espionage service. The circumstances are not known, but in March 1915 he was regularly supplying information to the French Intelligence people in Belgium. Unlike the majority of the secret agents who were employed by the Allies, he did his work solely from motives of hatred. More than once he refused the comparatively large sums that were offered to him when he had turned in information of high value. He would take money only for expenses, chiefly incurred in plying with liquor such of his "comrades" as were likely to drop useful hints when they were in a mellow mood.

Franz showed exceptional talent for his self-appointed task. Since he never troubled to conceal his anti-Prussian bias from his messmates, he was regarded by them as an outspoken but straightforward grumbler who would be the last man in the world to engage in secret intrigue. Not infrequently he received minor punishment for talking too loudly about his grievances, and this fact, besides gaining him sympathy with the rank and file, confirmed his reputation as a hot-headed babbler. It is the silent and secretive man who attracts suspicion. As for Franz, his superior officers would have laughed at the idea of his being dangerous in any way.

But the French Intelligence chiefs could have told

another story. They obtained from him remarkably accurate reports on the German dispositions in Flanders, movements of troops, the location of dumps, and many other subjects of vital importance. He was the first to report the construction of concrete bomb-proof shelters for U-boats at Bruges, of which he gave an exact description. Thanks to his timely warning Allied aircraft were enabled to interfere with this work, though eventually it was completed. He is also said to have given away the position of the 15-in. gun which threw its huge shells into Dunkirk with monotonous regularity during the greater part of the war.

In the early summer of 1915 Franz was sent to the Ypres front, and was lost sight of for over a year. He was presumed to have been killed, much to the regret of the Allied Secret Service, which had ranked him as one of their "aces." There was therefore great rejoicing when touch with him was regained in July 1916. The news came through an agent at Kiel. It appeared that Franz had been badly wounded in the fighting near Ypres, and after spending three months in hospital had, at his own request, been released from the Naval Corps in Flanders to serve again in the fleet.

How this contact was re-established makes an interesting story in itself. At that time the Allies had several agents among the crews of the Danish vessels that carried potatoes to Kiel and other German ports in the Baltic. One of these men, in British employ, was introduced to Franz by a German go-between, a fact which suggests that the young Alsatian had been showing symptoms of disaffection obvious enough to attract the notice of those who were looking for Secret

Service recruits in the ranks of the German Navy itself.

But when Franz was approached he did not display any enthusiasm at the idea of working for England. His sympathies were wholly with France, and it took a deal of argument to convince him that he would be serving that country equally well by giving Britain information about German naval movements.

Here I may interpolate that while the French authorities did occasionally hunt for enemy naval secrets, their main interest lay in purely military affairs, and they were quite content to leave the gathering of naval news to our people. But Franz was never quite happy with his new employers, who sometimes found it necessary to use a French intermediary to extract information from him.

For a considerable time he served in the battleship *Posen* of the First Squadron, High Seas Fleet. During this period he gave us valuable news about the fleet in general, the state of its ships and equipment, and its training methods. On one occasion he accurately forecast, a week beforehand, the day and hour at which his particular squadron was to weigh anchor for a sortie into the Bight, but through no fault of his own the news was delayed in transmission. Fortunately it so happened that we got wind of the projected cruise from another source.

In December 1916, Franz was drafted to the submarine service. At this date Germany was preparing for her tremendous U-boat offensive early in the following year, and as there were not nearly enough volunteers to man the numerous new submarines that were approaching completion, a large number of ratings were "borrowed" from the battle squadrons

to undergo training at the U-boat school in Kiel.

Sharp eyes and ears, coupled with a high standard of intelligence, made Franz an invaluable agent. Moreover, we knew him to be trustworthy, for while the hireling may betray his paymasters, the man who works solely from motives of love or hate may usually be trusted to run straight, having no temptation to do otherwise. It would be tampering with the facts to present Franz as anything more than a unit in the vast Intelligence system which kept the British Admiralty so closely apprised of German U-boat movements, but he was certainly a very important unit. He not only gave us information about new submarines and novel methods of attack and defence, but his reports were directly responsible for the mysterious disappearance of more than one U-boat that sallied forth to sink and destroy.

Candour compels the admission that by this time he was less disinterested than of yore, and certainly less discreet. He no longer refused pay for his services; on the contrary, he began to ask for larger sums, and in view of his excellent work these were paid without demur. But long immunity had made him careless. On being transferred to Wilhelmshaven he took to himself a sweetheart, and in moments of intimacy confided to her things which he would have done better to keep to himself. Whether or not this girl informed against him will never be known, but it is beyond doubt that an Allied agent who was then acting as a link between Franz and a higher authority was arrested soon after a meeting with the Alsatian. As the agent was never heard of again, he was presumed to have been executed as a spy.

That Franz himself was knowingly responsible for this grim episode is most improbable. He had nothing to gain by double-dealing, nor was there anything in his previous career to suggest that he was capable of such conduct. But towards the end he had become overfond of wine and women, and when under their influence his tongue wagged too freely. By this time, in fact, he had been marked down in the Intelligence files as "unreliable."

But the British, unlike some of their Allies, never betrayed a secret agent who had ceased to be useful. Franz was warned that talkativeness would be his undoing; his pay was reduced, and our liaison men in Germany took the most elaborate precautions whenever they approached him, which was now but seldom. Nevertheless, his hatred of Prussia flamed as fiercely as ever, fanned as it was, no doubt, by the harsh and arrogant demeanour of many of the German naval officers towards their subordinates. To him they were replicas of von Forstner, the bully of Zabern, the oppressor of the helpless peasants of Alsace, who since the outbreak of war had been forced to fight for their alien masters and driven to the shambles in their thousands—or so he wrote in one of his impassioned and indiscreet letters.

Since the only present means of damaging Prussia was to betray her war secrets to the enemy, he continued his work with unabated zeal, and although the man himself was no longer trusted, his reports still contained most valuable information. But his course was nearly run, and the end came in circumstances so dramatic that one would hesitate to relate them were they not the simple truth.

Franz was now a leading seaman, specially trained

in torpedo work. He had made several voyages in submarines for training purposes, but had not yet served in a "front line" boat. In July 1917 he was drafted to one of the boats operating with the Flanders flotilla. Back at Bruges he again got into touch with Allied secret agents, whom he kept well posted on the submarine movements which came under his observation. Two or three months later he reported, well in advance, that two UC minelaying boats would be leaving Zeebrugge on a given date to sow their mines in the English Channel. This information was received in ample time for a counter-attack to be prepared. The two submarines duly sailed.

Four days afterwards a British submarine was patrolling at dawn on her "beat" in the Channel. As enemy U-boats had been reported as likely to be in that vicinity, a specially vigilant watch was kept, but the night had passed without incident. The captain, muffled to the eyes against the bitter cold, took a last look round before going below for some hot coffee. Still nothing to be seen but grey clouds and a leaden sea—but what was that!

Away off on the starboard bow a momentary flicker of white, then another, and behind it an almost invisible shape, darker than the grey background of sea and sky against which it was moving perceptibly. A U-boat beyond doubt, betrayed either by the creaming foam of her conning-tower as she surfaced after a night on the bottom, or by her bow wave as she forged slowly ahead.

Inside the British submarine the klaxons blared. The conning-tower hatch slammed as the captain dropped down the ladder, and the boat went under in a crash dive. Had the enemy seen anything? If so,

he too would instantly seek safety in the depths, and the chance of an attack would be missed, for submarines under water cannot play blind man's buff.

The British boat straightened out after her dive, and then, very cautiously, the periscope was raised, with the captain at the eye-piece. One glance, and down came the periscope. It was all right. The German U-boat had obviously seen nothing, for it was still on the surface and had not altered its course. A few minutes later its grey bows slid into view across the sighting wires of the periscope, and two torpedoes set for high speed leaped from the bow tubes of the British boat.

A sheet of flame shooting skyward, a thunderous crash, and then silence. The periscope was raised, but the sea was no longer tenanted. Two dead bodies, a splintered wooden grating, and a canvas dinghy with a gaping hole in its side, these were the only souvenirs of the UC — and her crew. No one guessed that one of the corpses entombed in the riven hull that lay in twenty fathoms of water was that of Ludwig Franz, the young Alsatian who had served the Allies as a secret agent for nearly three years!

This extraordinary fact was disclosed when, months later, the German casualty lists were analysed by Intelligence experts. It was then possible to reconstruct the grim story by piecing together scraps of information from an agent in Bruges and other sources. A day or two after sending his last report Franz had been suddenly transferred from his own submarine to one of the UC minelayers detailed for the Channel expedition. He had no opportunity of letting us know, and even had he done so it would have been too late, for the British hunting pack was already unleashed.

In furnishing us with minute details of the cruise

which the UC — was to undertake Franz had literally signed his own death-warrant, for it was due to this information that the U-boat was torpedoed and sunk with all hands. But although in the end his own life was forfeit, he had terribly avenged the persecutors of his people.

CHAPTER X

BIG GUNS IN ACTION: SECRETS OF NAVAL SHOOTING

No feature of the naval operations of the Great War has evoked more discussion and controversy than the comparative standards of British and German gunnery. The accuracy of the German shooting in most engagements is frankly acknowledged by British historians, some of whom, perhaps, are disposed to exaggerate the prowess of our former enemies in this respect. In a previous volume ¹ I dwelt in some detail on the methods of German naval gunnery and paid ungrudging tribute to the remarkable results it achieved during the war.

Unfortunately, however, German commentators as a rule are not content with the generous meed of praise which foreign critics have bestowed upon German achievements. They accept praise ungraciously, demand fulsome recognition of claims which are not substantiated by existing records, and at the same time consistently belittle the work and methods of their late opponents. This churlish attitude is not encouraging to those who have striven to present the technical data of the naval campaign in a strictly objective and impartial light.

If one were to accept implicitly the German version of events at sea in 1914-18, one would be forced to the conclusion that materially the German Navy was perfect and the British Navy hopelessly defective.

¹ *Strange Intelligence*, by Hector Bywater and H. C. Ferraby (Constable, 1931).

That, needless to say, would be a distortion of the facts. In the vital matter of engineering efficiency, for example, the evidence of British superiority is too well-documented to admit of challenge. Mechanical breakdowns were as rare in British men-of-war as they were frequent in the German ships. Although exposed to a much more severe test, the machinery of the Grand Fleet withstood the ordeal of prolonged active service incomparably better than that of the High Seas Fleet.

From an analysis of the gunnery records of the Battle of Jutland three important facts emerge:

(1) Thanks to the armour-piercing and explosive qualities of their projectiles, most of the hits registered by the German guns produced visible and often spectacular results. Conversely, the British shell, admittedly inferior in quality, often failed to produce any noticeable effect when they found the mark. This difference caused the number of German hits in proportion to rounds fired to be over-estimated and the number of British hits to be under-estimated.

(2) During that stage of the battle at which the German fire was most effective—namely, the battle-cruiser action—the conditions of light and visibility were wholly in favour of the Germans. For the greater part of this phase the British gunners were unable to see their targets clearly, and at times had no point of aim excepting the enemy's gun-flashes. All German accounts lay stress upon the sharpness with which our battle cruisers were silhouetted against the western horizon, just as all British reports emphasise the difficulty of keeping the German ships in sight at all. These conditions are sufficient to account, in part at least, for the superior accuracy of the German shooting during the period in question.

(3) From about 6 p.m., when the main battle fleets first made contact, conditions of light and visibility became unfavourable for the Germans, and from that time forward their shooting deteriorated to such an extent as to become practically ineffective: indeed, the German ships might have been firing blank charges for all the damage they caused. *cb*

The main battle fleet action began at 6.27 p.m. and continued, with several intervals, until 8.30. Twenty-two German battleships, of which all but six were Dreadnoughts, were engaged in this action, and according to their own official returns they fired 1,927 rounds of 12-in. and 11-in. shell. And what were the results of this tremendous expenditure of heavy ammunition by a naval artillery which alike in construction, equipment, and direction has been advertised as the finest in the world? The answer deserves a paragraph to itself.

Two superficial hits were scored on H.M.S. *Colossus*, causing slight damage to the superstructure and wounding five men.

No other British battleship received a single hit during this period of nearly two hours' action with the German battle fleet. It is but fair to mention that a small percentage of the rounds had previously been fired by the High Seas Fleet at the Fifth Battle Squadron—when visibility conditions still favoured the Germans—on which a number of hits were scored, and also at the Second Light Cruiser Squadron, which was not hit at all. This, however, does not alter the fact that the German Dreadnought artillery was in action for two hours against the British battle fleet without scoring a single hit of any importance.

So much for the vaunted prowess of the German naval guns and gunners. Had the results been equally

negligible on both sides there would be little further to add, the inference being that atmospheric conditions were such as to make accurate shooting impossible. But the statistics have a very different tale to tell. While the German battleships were firing furiously and missing clean with every salvo, they themselves were being subjected to an accurate and deadly cannonade from their British "opposite numbers." Their official returns admit twenty-eight hits from the heaviest projectiles, the *König* alone being struck ten times. Moreover, of the seventy hits officially admitted to have been received by the German battle cruisers in the course of the whole action at Jutland, many are known to have been inflicted by our battle fleet.

Thus, if the comparative gunnery statistics of Jutland were confined to the main action they would indicate a crushing British superiority. As it is, the complete returns suggest that while there was little to choose between the shooting of the two fleets when atmospheric conditions were good, any deterioration in these conditions not only affected the German gunnery more than the British but caused it to become quite ineffective. It is difficult to see what other inference is to be drawn from the data available, and it should be noted that all the figures I have used are derived from the official German records.¹

Circumstances have conspired to create a false impression of the damage inflicted and received in the Battle of Jutland. Details of the material injuries and casualties suffered by the Grand Fleet were published without reserve soon after the action, no attempt being made by the British Admiralty to hide the truth. Very different was the procedure of the Germans, who did

¹ *German Official History of the War : Nordsee*, Vol. V.

their utmost to conceal their losses and, whenever this was not possible, minimised them.

For the following illuminating comments on this subject I am indebted to a recognised authority on naval gunnery who is able to speak from first-hand knowledge:

"Many British officers, fresh from Jutland, stated that the first German salvoes pitched near our ships. After the war, German officers who had been present at the battle told me that they had used the 'ladder' system of initial firing: that is to say, one gun was fired under the estimated range and deflection, one over, and the third at an intermediate setting. It was then observed which of the three shots fell nearest the enemy, and the aim was corrected accordingly. In the British ship the shell that pitched nearest created a lasting impression on the minds of the officers who saw it; those that fell wide were probably not seen, and certainly not remembered. Hence a general impression was at once created that the German firing was unusually good.

"German officers subsequently informed me that they were astonished at the extraordinary accuracy of the initial British salvoes. Both sides made practically the same statements with regard to each other's shooting—with this difference, however: the German officers were not allowed to publish these statements, whereas greater freedom was accorded to the British officers.

"When the German fleet came in for internment, a British officer was surprised to hear the German officers who were accompanying him in a steam pinnace make the same remarks on the excellence of the British firing which he had been in the habit of

making about German gunnery. The truth cannot be established solely from personal impressions recorded just after the action; it can be derived only from actual observation of the damage inflicted. From information personally obtained by me in Germany there can be no doubt that the destruction in the German ships at Jutland was far greater than any of our officers realised."

This statement is fully confirmed by other evidence. Soon after the Battle of Jutland Intelligence reports were received from agents in Germany in which the material damage and casualties suffered by the High Seas Fleet were shown to be much more extensive than the British Admiralty had believed them to be. For a time these reports were viewed with suspicion, but ultimately they were found to be accurate in every essential particular.

When the German fleet returned to Wilhelmshaven after the action it was not permitted to enter the harbour until the external signs of punishment had been so far as possible removed or covered up. As is well known, cameras were not allowed in any German ship, and this regulation helped to prevent information regarding the extensive damage to the fleet becoming public. Nevertheless, a series of excellent snapshots was taken privily by a sailor on board one of the tugs which assisted the damaged ships to regain harbour, and in no long time copies of these photographs found their way to the British Intelligence headquarters.

It is true that an appendix to the German official history, *Nordsee*, Volume V, tabulates the hits and casualties suffered by vessels of the High Seas Fleet in the battle, but since these statistics are strikingly at variance with evidence from other sources they cannot

be accepted as trustworthy. For example, the *Nordsee* tables record only ten hits "from heavy artillery" on the battleship *König*. But Admiral von Trotha, who was present at Jutland as chief of staff to Admiral Scheer, states that the *König* received twice that number of hits.

His exact words are:—"With twenty heavy hits in her hull the *König*, flagship of Admiral Behncke, still remained firmly in the line" (*Auf See Unbesiegt*, Vol. I, p. 15).

In the *Nordsee* tables, too, the battle cruiser *Derfflinger* is listed as having been heavily hit seventeen times. But Commander Georg von Hase, who was gunnery officer of this ship at Jutland, states categorically that "our ship received twenty-five hits from 15-in. shell and as many more from projectiles of lesser calibre" (*Die Zwei Weissen Völker*).

Again, the official *Nordsee* table admits only twenty-four hits on the *Lützow*, though every other German account of her destruction mentions at least forty heavy hits in the ship.

These discrepancies, which could easily be multiplied, cast grave suspicion on the accuracy of the figures given in *Nordsee*, and go far to support the belief that every effort has been made and is still being made in Germany to minimise the effects of British gunnery at Jutland.

Even if other evidence is ignored, the rapidity with which the British ships damaged at Jutland were repaired and returned to service, as compared with the many months required for the restoration of the German vessels, is a clear indication of the relative amount of injury inflicted and received.

Many British reports—including Admiral Jellicoe's official despatch—which stressed the excellence of the German shooting were freely published, but German

official and private reports which contained equally high praise of the British gunnery were suppressed for many years, and only recently have some of these come to light. This explains how the legend of the almost miraculous quality of the German shooting at Jutland was born, and why it has endured for so long.

It is, of course, impossible to compute the total number of hits registered in the battle, as many were made on ships that sank; but the surviving German vessels received a total of 120 hits, as compared with 90 they inflicted on our ships. The casualty lists tell the same story. In big ships, apart from those sunk outright, the heaviest losses were:—

British.				German.			
<i>Lion</i>	.	.	143	<i>Derfflinger</i>	.	.	183
<i>Princess Royal</i>	.	.	100	<i>Lützow</i>	.	.	165
<i>Malaya</i>	.	.	96	<i>Seydlitz</i>	.	.	153
<i>Barham</i>	.	.	63	<i>König</i>	.	.	72

No combat in history has ever been so cleverly exploited for political and commercial purposes as the Battle of Jutland. To this day several German industries, notably the optical glass trade, owe their prosperity mainly to misleading reports on this action. Thanks largely to German propaganda, unconsciously abetted by British naval officers, to the effect that the German shooting at Jutland was incomparably superior to that of the Grand Fleet, several foreign Governments still purchase their naval fire-control equipment from German firms, apparently believing that since this gear demonstrated its efficiency in 1916, German design and workmanship must still be supreme to-day.

This is a fallacy. Even if we concede Germany's superiority in 1916, it does not follow that she has kept the lead ever since. The truth is that owing to the insignificant status of their post-war navy German

manufacturers have almost completely lost touch with advanced progress in fire-control technique. They are, in fact, still working on principles which British designers have discarded as obsolete.

Range-finding is a vital factor in long-range gunnery. At the date of Jutland our battleships carried nothing larger than 9-ft. telemeters, although for several years previously British-made instruments with a base of 30 ft. had been supplied to foreign navies. The fact that our own ships had to rely on 9-ft. range-finders, which were inefficient at long ranges, was due to restriction of space in gun turrets and control stations. The instruments had to be designed to fit into a small space. In the German Navy, on the other hand, turrets and control positions were planned to take range-finders of the longest practicable base, and the presence of these instruments gave the German fleet an enormous advantage in long-range action.

Modern British battleships and cruisers are equipped with range-finders of 30 to 40 ft. base, which are immeasurably superior to the types in use at Jutland. They are so mounted as to be absolutely unaffected by vibration from the ship at speed or the concussion of gunfire. This is exclusively a British innovation. Our latest range-finders, and, indeed, all the new British-made optical instruments which the Royal Navy uses in fire-control, have demonstrated their superiority over the best foreign productions in the course of exhaustive tests at the National Physical Laboratory.

As regards the British Navy, it is betraying no secret to state that post-war developments in fire-control have exceeded anything in the whole previous history of the science. For this pre-eminence there are good reasons. No other navy possesses such a rich fund of war

experience, and none other has been in a position to exploit in full measure the dearly-bought lessons of 1914-18. Germany might have run us close but for the restrictions placed on her naval forces by the Treaty of Versailles. As it is, she is handicapped by inadequate and obsolete material, and her gunnery technique is, therefore, no longer up-to-date.

To substantiate the claim of British superiority in modern naval gunnery I propose to set forth a number of facts which have not hitherto been released for publication. They relate to recent gunnery performances by the fleet, and disclose the mechanical methods which have produced these extraordinary results. Technical phrases will be avoided as far as possible, and the working of the system explained in clear language.

During the year 1931 the Battle Cruiser Squadron carried out a "shoot" at a range of approximately fourteen miles, this being four miles in excess of the greatest distance at which accurate shooting was made in the war. The ships were steaming fairly fast, and the target was under tow at a considerable speed. The practice was a "concentrated shoot," *i.e.* all ships were firing simultaneously at a common target, and was controlled by the flagship, signals from which transmitted the requisite gunnery data to the other units of the squadron.

The very first salvo from the 15-in. guns was a "straddle"—that is, some of the shots pitched beyond and others short of the target: the second salvo resulted in several direct hits, and the third demolished the target. Had this been an enemy vessel she would have been hit repeatedly by 15-in. projectiles less than a minute and a half after coming under fire.

The practice described was by no means exceptional,

and will serve as a typical case. It was made possible by the director system of fire-control, which in the British Navy has been developed to an astonishing degree of perfection. Introduced by the late Admiral Sir Percy Scott some years before the war, the system was installed in all our heavy ships and most of the lighter craft at the date of Jutland, and may be said to have revolutionised naval gunnery.

The difficulty of pointing out the correct target to the gunlayers, and, in fact, of enabling them to see the target at all, was clearly shown in the earlier actions of the war. By the introduction of a director, high up and yet clear of smoke, this difficulty was removed. That was why our gunners at Jutland were able to score a large number of hits on the enemy despite the trying conditions of visibility, which allowed only fleeting glimpses of the German ships to be obtained. But since those days the director system has been vastly improved.

One of the most important changes has been the introduction of gyroscopic control into the director sight. This gyro keeps the horizontal cross-wire of the sight bearing on the target irrespective of the motion of the ship, and greatly simplifies the work of the director-layer, especially in smaller ships with a large and fast roll. The same system enables the guns to be actually fired by the gyro mechanism, thus eliminating human error.

Another improvement is the "undisturbed line of sight" and a greatly superior transmission system. Other modifications tending to simplify the work of the operator have taken place at the gun, or reception, end of the system. These automatically supply the necessary corrections for range, muzzle velocity of the gun, temperature of charge, etc.

Director sights for the larger ships have always been mounted in revolving towers situated above or below the spotting top on the mast, this top being occupied by the control officer. Recently, however, the director and control positions have been incorporated in one tower, thus bringing the control officer and the director-layer into immediate touch. This innovation has many advantages. The director tower contains, besides the director itself, a range-finder and the necessary instruments and communications for the control officer and his staff. The towers are easy to manipulate and form a compact and homogeneous observing, controlling, and firing unit. They occupy a lofty position, clear of gun-blast and smoke from funnels and guns, and each is duplicated by alternative positions lower down or in the after-part of the ship.

The principle of placing as many of the fire-control instruments as possible in a sheltered position below the water-line, known as the transmitting station, was in general use before the war, and successfully withstood the test of action. Here in this "holy of holies"—the most confidential place in the ship—is situated the fire-control "table," the high altar of naval gunnery. All ranges taken by the range-finders are transmitted, automatically or by hand, to this instrument—which would be more correctly described as a tabulator—and plotted thereon.

By various ingenious devices the table prepares a moving chart of the gunnery situation, which records the target's speed and course and many other data essential to the accurate aiming of the guns. Reports on the movements of the target reach the transmitting station from the primary or alternative control positions in the ship, or by wireless signals or telephone from aircraft, and are instantly transmitted to the table,

which modifies its diagram accordingly. The table is also supplied with information as to own ship's movements, direction of wind, and other corrections which must be incorporated in the plot in order to correct the elevation and direction to be set on the guns. It is the function of the table operators to receive all these reports, apply them as rapidly as possible, and, with the help of the table, to deduce the correct answer, which is then passed to the director-layer and the guns in terms of elevation and deflection.

Although complicated in appearance, the British Navy's latest form of fire-control table has been much simplified and made well-nigh foolproof. Absolute freedom of manœuvre is enjoyed by the ship without upsetting the fire-control calculations. If, for example, the ship has to make a sudden and sharp alteration of course or speed, the necessary readjustment of gunnery data can be effected in a matter of seconds, which means that the guns are kept steadily bearing on the target all the time.

Rapidity and simplicity of operation, combined with accuracy, are the keynotes of the modern fire-control table. In an emergency it can be set from guessed information, and it is not necessary to wait for the plotting mechanism of the table to develop.

Besides the table itself, many other instruments are housed in the transmitting station, including those which calculate the projectile's time of flight from gun-muzzle to target, and automatically announce throughout the ship when the ship's own salvos are due to fall. The station also contains instruments which show when each gun is loaded and ready to fire. The precise moment at which each salvo is to be fired can be regulated by an operator in the same room.

Although to a layman the interior of a transmitting

station may appear to be a bewildering mass of instruments, in actual fact the task of any particular operator is a simple one. Each individual instrument has been simplified from the point of view of the operator, and as much as possible is now done automatically. Years of experience and research have brought many changes and improvements, all of which have been amply justified by the results obtained at target practice.

We can now watch the system at work during firing exercises. Well in advance of the hour at which the "shoot" is timed to begin, all fire-control and gun positions are manned, the gunnery personnel in a battleship or big cruiser forming a considerable proportion of the complement. First information of the presence of the enemy—whether a towed target or the wireless-controlled target ship—may be received either from aircraft or from cruisers or submarines scouting ahead. As soon as the probable position of the target is known the director is trained in that direction.

Every movement of the director tower is automatically recorded by dials in the gun turrets, and as these dials are kept in step with the electrically operated pointers, the guns receive the exact degrees of elevation and deflection indicated by the director. It should be added that the actual elevating and training of the guns are effected by servo-motors which conform to the movements of the dials.

Once the direction of the target is established, the director, and hence the guns, are kept on that compass bearing by means of a gyro compass. The control officer now estimates the range of visibility. This is passed to the transmitting station and applied to the fire-control table, and is subsequently relayed to the director and gun positions in the form of corrected elevation. Modern big-gun mountings are designed

to permit of very high elevation, and a 15-in. or 16-in. weapon, fired at an angle of 30 degrees, will hurl its projectile a distance of more than twenty miles; in fact, its range may be said to extend to the limit of human vision, even when atmospheric conditions are uncommonly good.

The course and speed of the ship itself are automatically passed to and applied to the table. The effects of "own ship" on range, etc., are thus accurately dealt with, and errors due to these sources may now be considered negligible. Various other corrections can be calculated and applied before the target is sighted—for example, wind, barometer and thermometer, temperature of charge, and so forth. In many cases these corrections are now automatically transmitted, applied, and kept correctly set. And while the finest human brain may falter at times, the instruments with which we are dealing are virtually infallible.

In time of war, loading of the ammunition hoists which convey projectiles and powder charges up to the guns would be performed earlier than in peace practice, but in either case the order to "load the hoists" and "load the guns" is given in ample time before it is desired to open fire. When the target is sighted the director is at once trained on to it. Assuming that the "stand by," or guessed, bearing was fairly accurate, it is only a matter of seconds before the director is trained on, and, as before, its movements are automatically transmitted to all control, range-finder, and gun positions.

The control officer and his staff immediately estimate the course and speed of the target, and pass these data to the transmitting station, where they are set on the fire-control table. If visibility is good, time may admit of these settings being corrected by fresh visual or

instrumental estimates—enabling new deductions to be drawn from the various plots on the fire-control table—before fire is opened. When the captain decides to fire, the selected guns are brought to the “ready,” and the fact that they are so is automatically registered in the various control positions, as well as in the transmitting station.

Now the captain, or it may be the admiral by signal from his flagship, orders fire to be opened. The permission order, “shoot!” is passed by the control officer to the transmitting station. When the staff here are satisfied that the range and deflection settings are the best available they pass the order “fire!” by electric gong and verbally, to the director tower. The director-layer then presses his key and fires the armament as soon after the receipt of the order as his sights are on.

As the salvo thunders forth the guns recoil on their slides, and by so doing set in motion an element of the “fall of shot” indicator. This indicator is kept set to the range at which the guns have been fired, and when the “time of flight” of the projectile between gun and target has elapsed, a hooter automatically sounds in all control positions. In this way the control officers are able to identify the salvos from their own ship, as distinct from those fired by other vessels at the same target, and to apply the necessary corrections.

These latter are passed to the transmitting station and applied to the table or other instruments there. It should be added that the transmitting station remains unaffected if any particular control position is knocked out. It can receive its orders from any position, or for that matter from aircraft. Similarly, if a director tower is put out of action, the corrections, etc., from the transmitting station are constantly being kept up to date in

the alternative director positions, from which the guns can continue to be aimed and fired.

The fire-control system now used in the Navy aims at extreme simplicity so far as the human element is concerned. Every individual's task is an easy one. Some of the instruments are complex internally, but as regards external manipulation they are the essence of simplicity. As many data as possible are registered or applied automatically, and the few unknown quantities, such as the enemy's course and speed, are estimated and corrected by a variety of methods.

It should also be emphasised that many of the instruments are adjuncts to accuracy, and not a necessity, by which is meant that fire can be opened from guessed data a few seconds after the enemy has been sighted, and be corrected subsequently with the aid of the instruments, as well as by visual "spotting" of the fall of the shot.

Spotting itself will correct the fall of individual salvos, but to maintain hitting it is essential that the correct allowances should be kept applied for movements of the firing ship, target, wind, etc. For this purpose instruments are indispensable, and it is confidently claimed by our gunnery experts that the Navy's present system of fire-control is at once the simplest and most accurate that has yet been developed.

Moreover, the claim is fully borne out by recent battle practice results, conducted under conditions which bore the closest possible resemblance to those of war. It has been my privilege to witness a number of shoots by capital ships, cruisers, and destroyers, both in the North Sea and the Mediterranean, sometimes in weather that would effectually have prevented anything like accurate practice by the old methods. Yet on every occasion, even when the ships were dis-

tinctly lively in a seaway, the target was always straddled and hit in the first few salvoes, though at times the range was so great and visibility so poor that the mark was a mere blur on the horizon.

It is sometimes asserted that our fire-control system is too complicated and too dependent upon mechanical aids. Superficially it may appear to be so, but closer examination shows it to be fundamentally simple and almost fool-proof. Further, every vital element in the system is so duplicated that it would continue to function even after the ship had sustained heavy punishment in action.

There can be no doubt that the perfection of British fire-control methods, coupled with improvements made in armour-piercing and high-explosive shell, have increased beyond measure the fighting efficiency of our battleships and cruisers, which are now able to use their big guns with telling effect at almost incredibly long ranges. This applies equally to the armament of smaller vessels. In simplified form, the same system of fire-control which sends the monster 16-in. shells of H.M.S. *Nelson* through the target at a range of fifteen miles also enables a destroyer, rolling and pitching in heavy weather, to work its quick-loading guns with astonishing sureness of aim.

These facts have a direct bearing on the future of the big ship, for if the great guns which such a vessel alone can carry are capable of being fired with accuracy at any range within the limits of vision, no further argument for the survival of the battleship seems necessary. Always a weapon of precision when properly controlled, the heavy naval gun of to-day is unquestionably the monarch of battles by reason of its power to deal a succession of shattering blows from the moment that the target comes into view.

Damage inflicted by the torpedo may be localised by subdividing the hull, but it is doubtful if any form of protection would keep out a salvo of 16-in. armour-piercing shell, each weighing a ton and travelling at an initial velocity of 2,650 ft. per second.

CHAPTER XI

GERMANY'S ISLAND FORTRESS: THE TRUE STORY OF HELIGOLAND

EARLY in the Great War a German illustrated paper published a cartoon in which Grand Admiral von Tirpitz, in heroic dimensions, was shown standing in the sea before Heligoland, with the Dreadnoughts of the High Seas Fleet anchored discreetly under the guns of the fortress. Below was the following doggerel:

"Helgoland, Tirpitz, und Flotte zur dritt':
Greif an, wer Lust hat; er beisst auf Granit!"

According to this, the most important factor of German sea-power was Heligoland, Tirpitz coming second, and the fleet last of all!

Looking back on the naval operations of 1914-18 it is not easy to determine the importance of the part that was played by the fortress of Heligoland. The fact that its guns were never in action is negative evidence of its value as an advanced bastion of the German coastal defences. Had Heligoland not existed British ships might possibly have entered the Bight more often than they did. But since British strategy, contrary to the German interpretation of it, never seriously envisaged an attack on Germany's North Sea littoral, it may be doubted whether the enormous sums lavished on the fortification of Heligoland yielded an adequate return.

During the Battle of the Bight, on August 28, 1914,

the *Arethusa* and her brood of destroyers were well within gunshot of the island, but poor visibility prevented the batteries from coming into action. As the "wet triangle" is a breeding-ground for mist and fog, the great guns of the fortress would rarely have been able to fire at their extreme range, which was about 35,000 yards. Under normal conditions of North Sea weather their "command" was probably limited to ten miles. German historians express disappointment at the refusal of the Grand Fleet to offer itself as a target for the artillery of Heligoland; in fact, in all the German records of the war at sea there is an undercurrent of chagrin at the failure of the British Navy to hurl itself against the defences of the Bight. Why British admirals should have contemplated such crazy strategy is not explained.

It is true that a plan for the bombardment and capture of Heligoland was discussed at a Grand Fleet staff conference in September 1914. Who sponsored the idea has never been revealed, but it was decisively rejected by most, if not all, of the senior officers of the fleet. Earl Jellicoe, the then commander-in-chief, subsequently disclosed his reasons for opposing it. High-angle fire controlled by aircraft was the only feasible method of reducing the defences, and the Grand Fleet did not at that time possess the facilities for this form of attack.

In view of the great strength of the position the operations must necessarily have been prolonged, yet since Heligoland is less than thirty miles from the German mainland the intervention of the High Seas Fleet, not to mention that of submarines and aircraft, would have been merely a question of hours. It would have been the Battle of Lissa over again, and we should have thoroughly deserved to suffer the fate that befell

Persano when, in similar circumstances, he flouted the elementary principles of strategy.

Finally, had we captured Heligoland by a miraculous stroke of luck, we could not have held it indefinitely against the violent counter-attacks which the enemy would have been in a position to launch. All this was fully realised by responsible naval opinion, and we should be grateful to those officers who resolutely declined to father such a hare-brained project.

Until the year 1890 Heligoland was a British possession, taken from Denmark during the Napoleonic wars. The name is commonly assumed to mean "Holy Land," but the weight of authority is against that assumption. Hallaglun, or Halligland, signifying "land of banks which cover and uncover," appears to have been the original name, though a pagan temple is known to have existed on the island. Before and after the seventh century, during which St. Willibrord preached Christianity there, this tiny outpost was captured and recaptured times without number by the fierce sea-wolves who roamed the northern seas. Ultimately it became a fief of the Dukes of Schleswig-Holstein.

Situated off the estuaries of the Elbe and the Weser, twenty-eight miles from the nearest point on the mainland, Heligoland consists of two islets: the main, or Rock Island, and the small Dünen-Insel, lying a quarter of a mile to the east. Triangular in shape, the main island is surrounded by precipitous red cliffs, fringed by a white beach. The whole area amounts to less than one-fifth of a square mile, and the town, or rather the village, is divided between the "Unterland," or lower part of the island, and the "Oberland," or plateau, some two hundred feet above, the two being connected by a wooden stairway and a lift.

Before the war the few thousand inhabitants were mainly of Frisian stock. They were a sturdy and independent folk, most of them depending for their livelihood on the sea. As long as they remained under the British Crown they were peaceful and contented, for nobody interfered with them. They tolerated rather than welcomed the hordes of German visitors who swarmed to the island in the summer months. Towards Germany herself they were suspicious and unfriendly, and it was a grievous blow when they learnt that the British Government had so little interest in their island that it was to be bartered away to Prussia in exchange for some territory in East Africa.

This event, which occurred in August 1890, excited little interest in England. It is true that the momentous decision to cede Heligoland to Germany was not taken without previously consulting the Admiralty, but a search through the newspaper files of the period fails to disclose any vigorous protest by naval critics against a decision which might well have been challenged on grounds of high policy. It would have been easy to state a case, not only for retaining the island, but for developing it as a British stronghold.

But before criticising our late-Victorian statesmen for their apparent folly in this matter it is but fair to remember that in 1890 none but a few, a very few, clear-sighted Englishmen foresaw the possible consequences to their country of the aggressive policy which Germany even in those days was steadily pursuing. Public opinion, so far as it thought of the matter at all, seems to have regarded the cession of the island as a belated act of justice.

For several years previously the German Press, under the skilful guidance of Bismarck, had been dwelling on the hard fate which made the inhabitants

of Heligoland the subjects of an alien race. Considering that German savants have never had difficulty in proving to their own satisfaction that the greatest men of every age and country have been of Teutonic blood, it was a simple matter to demonstrate the Germanic origin of the natives of Heligoland. Elaborate attempts were made to show that the island itself was formerly part of the German mainland, and altogether there was a fine show of indignation at the arbitrary action of Great Britain in holding on to a piece of territory which Providence had obviously intended to be German.

This propaganda was encouraged by the indifference with which Heligoland was viewed by the British Government of the day. No attempt was made to develop it either economically or for naval purposes. The inhabitants won a precarious livelihood by fishing, eked out by potato cultivation. The only regular means of communication was maintained by a German steamship company, which ran steamers between Cuxhaven and the island. There was no direct service from this country to Heligoland, nor, it must be confessed, was there any inducement to establish such a service.

The circumstances under which Heligoland was detached from the British Empire are sufficiently interesting to merit brief notice. In the spring of 1890, while the Anglo-German negotiations over Zanzibar and other East African questions were in train, Lord Salisbury offered to present Heligoland to Germany, presumably as a sort of make-weight. As the offer was not very graciously received it was not repeated. A few weeks later, however, the young German Emperor was suddenly seized with an intense desire to possess the little island, and accordingly instructed his Ministers to press the matter.

In June 1890, Queen Victoria expressed disapproval of the proposed cession of Heligoland. Lord Salisbury then appointed a Cabinet committee to consider the question, and to confer with naval experts. Subsequently he informed the House of Lords that the verdict of the sailors was "not unfavourable," and on June 10 the Cabinet unanimously agreed to part with the island in exchange for German concessions at Zanzibar.

But the Queen was not satisfied. She acknowledged the force of her Minister's argument, "but that any of my possessions should be thus bartered away causes me great uneasiness." Her consent was made conditional on a positive assurance that the arrangement would not constitute a precedent. Lord Salisbury's reply to her Majesty is of exceptional interest, stating as it does clearly and concisely the reasons which led him to regard Heligoland as being of no strategic value to Great Britain:—

"He quite understands (ran his letter to the Queen), and so do his colleagues, that this case is not and cannot be a precedent; it is absolutely peculiar. The island is a very recent conquest. It became a British possession by Treaty in 1814. Why it was retained at the general settlement we do not know; but most probably because it was geographically a dependency of Hanover, which was then ruled by the British Sovereign. Now that Hanover has gone, it has no connection with us. No authority has ever recommended that it should be fortified; and no House of Commons would pay for its fortification. But if it is not fortified and we quarrelled with Germany, it would be seized by Germany the day she declared war, and it is so near her great arsenals that she could fortify it impregably in three or four days. Unless we are prepared to arm it, we are merely

incurring a certain humiliation if ever we are at war with Germany. Yet a war with Germany is the only contingency in which any possible danger could arise from it." ¹

A few years before the cession took place Heligoland presented the singular spectacle of a British island in which, during the summer season at least, the great majority of the population consisted of Germans. No one in England seems to have discovered any strategical value in this North Sea islet, for nothing was done to equip it for defence, and the only military work was a battery which the Danes had built a century before.

It is interesting to speculate on what might have happened had we not only retained Heligoland but proceeded to fortify it on a large scale. Germany would probably have protested, and not without some reason, since the implication could not have been denied. We should, no doubt, have been strictly within our rights in converting the island into a fortress; but there are occasions when it is prudent to subordinate rights to political expediency, even at the sacrifice of a strategical advantage, and this unquestionably was one of them. On the whole, therefore, we need not be too critical of the British statesmen who first neglected Heligoland and then turned it over to a foreign Power—with which, be it remembered, we were then on the friendliest terms.

Under German rule the status of the island was completely changed. From an obscure fishing hamlet it speedily developed into a naval fortress of the first rank. Stern Prussian officials displaced the easy-going local authorities; the simple islanders found themselves hedged about with all manner of irksome rules and

¹ *Letters of Queen Victoria*, 3rd series, Vol. I. p. 614.

regulations, and in due season considerable tracts of the "Unterland" and "Oberland" were fenced off with barbed wire, having been pre-empted for military purposes. To check the erosion of the cliffs, which had been gradually crumbling beneath the onslaught of the North Sea breakers, they were reinforced with concrete, while massive breakwaters were built to arrest the turbulence of the sea.

The Unterland was extended by depositing there the dredgings from the Elbe and Weser. Full credit must be given to the German engineers who not only checked the ravages of the sea but turned the tables on the devouring element and wrenched from its maw a considerable tract of land. So successful was this reclamation work that the original expanse of foreshore was trebled, thus providing space for a small dockyard, complete with workshops, magazines, and a seaplane station.

An artificial harbour was created by the building of two immense breakwaters, respectively 650 and 430 yards in length, curving inwards at the extremities. Although too shallow for deep-draught vessels, the harbour offered a perfect refuge to torpedo-craft, for whose benefit it was built, as well as to submarines, by which it was destined to be chiefly used. The breakwaters were extended along the base of the island on the North Sea side to provide emplacements for light guns and searchlights, and also to resist attempted landings. The dockyard included a graving dock, and near by were capacious underground tanks for the storage of fuel-oil. In large measure, therefore, Heligoland was self-contained and able to withstand a siege of indefinite duration in the highly improbable event of its communications with the mainland being cut.

It was on the Oberland that the main defences were

concentrated. At the northern end were two revolving turrets, each containing a pair of 12-in. high-velocity guns, and two similar turrets were mounted near the southern extremity of the plateau. Guns and turrets were similar in every respect to those carried by the German Dreadnoughts. Below each turret were the handing-rooms and shell hoists, just as they would be arranged on board ship, but the magazines were deep down in the living rock, far beyond reach of stray shells or air bombs.

The two battery positions at north and south were linked by a tunnel that ran practically the entire length of the plateau. Over twenty feet underground, it was from five to six feet wide, with eight feet of head-room. Lined with cement throughout, brilliantly lighted by electricity and warmed by steam pipes, it enabled ammunition to be transferred from one set of guns to the other. It also contained the light and power cables, fresh-water pipes, and ventilation ducts. From this main passage other tunnels branched off at intervals, leading to magazines and other subterranean spaces.

The eight 12-in. guns in their stout armoured turrets would in themselves have been sufficient to keep hostile craft at a respectful distance. On their special high-angle mountings they had a range exceeding that of any ships' artillery of the war period, and nothing short of one or two direct hits by projectiles of the heaviest calibre would have put a turret out of action.

But the Germans were taking no chances. Besides the 12-in. guns they built a sunken howitzer battery at the southern end of the plateau. It consisted of seven 11-in. howitzers each emplaced separately in a funnel-shaped pit thirty feet below the ground. The mountings were bedded in concrete and covered by a hemispherical armoured dome which revolved about a

horizontal axis and uncovered the howitzer at the moment of firing. To have silenced this invisible battery by naval bombardment would have been virtually impossible, while the plunging effects of its massive projectiles must have endangered the mightiest battleship.

At various points on the plateau were mounted anti-aircraft guns and observation posts, all protected by armoured shields, and at either end of the island was a disappearing lighthouse, the top of which, when lowered, was just below the ground. When in that position a heavy armoured shutter was drawn across the opening. As this description of the defensive system clearly shows, nothing whatever was left to chance. Every important element was so well concealed or protected by armour that the risk of its being disabled by any form of attack was negligible. The whole Grand Fleet might have emptied its magazines at Heligoland without knocking out a single gun or howitzer.

Nor had the defenders overlooked the possibility of a *coup de main*. We know from what happened at Zeebrugge on St. George's Day in 1918 that the most formidable defences may be stormed by determined men. It is, therefore, just conceivable that a landing might have been effected inside Heligoland harbour at night, under cover of a smoke screen. But the lodgment thus gained could not have been made good. Not only was the whole foreshore commanded by quick-firers and machine-guns in concrete emplacements, but guarding the stairway which led up to the Oberland was a miniature fortress of steel and concrete, camouflaged as a dwelling-house. The storming of Zeebrugge Mole would have been child's play to a raid on Heligoland, while the complete conquest of the island was, humanly speaking, an absolute impossibility.

What the British Navy thought about Heligoland has been epitomised in breezy fashion by a submarine officer:

"The island of Heligoland has been a wonderful source of inspiration to the newspapers throughout the war. It has been described as being the strategic pivot of the North Sea, and as the heavily-fortified base of the High Seas Fleet. The importance of the place may be better gauged if it is explained that it has just about the fighting value that an old battleship would have if moored out head to stern on the shoal, but with the disadvantage of the guns being unable to obtain 'all-round' training. If we had had possession of it instead of the enemy, we would have lost heavily in trying to keep it. Our position there would have been rather as if the Germans had tried to hold the Shipwash Light-vessel off Harwich; it would have been too exciting for words."¹

As our submarines were the only units of the Navy which habitually operated in the waters supposed to be dominated by Heligoland, their officers were in an excellent position to judge of its value to the enemy. And they thought very little of it. Except as a landfall to take bearings by and to fix position on, and for general navigational purposes, they ignored it. There is, indeed, something contemptuous in the curt entry in the log-book of H.M. submarine *E 2* when she ran aground on this "Gibraltar of the North Sea." The captain of the boat, Lieut.-Commander Stocks, saw nothing particularly exciting in an incident which lent itself to dramatic description; and although the joke

¹ *The Story of our Submarines*, by "Klaxon" (Commander J. G. Bower, R.N.). Published by Blackwood, 1919.

was decidedly on the Germans, they, too, failed to appreciate the humour of it.

E 2 was patrolling in the Bight when a fog came down. As is customary when submarines are cruising near the coast or in thick weather, her diving tanks were partially filled in order to have a generous reserve of buoyancy in hand should an emergency occur. Suddenly the grey banks of fog merged into something more solid, and before the submarine's way could be checked she slid up the beach under the western cliffs of Heligoland. In spite of the cool way in which it is dismissed in *E 2*'s log, it must have been a hectic moment.

Only a few yards away from where the submarine had grounded there was a gun emplacement, the crew of which could be seen gaping in astonishment at the intruder. Then the spell was broken; they ran to and fro, shouting and gesticulating, while the captain of *E 2* politely took off his cap and a bluejacket wafted a kiss to the excited Germans. The latter were trying desperately to depress their gun, but it was too high above the water and could not be brought to bear.

On board the submarine the utmost coolness prevailed. It was realised that the situation was well in hand. The tanks were blown, and as the boat recovered her buoyancy and the motors were put full speed astern she glided off the beach into deep water. It was high time, for the alarm had been raised, and a torpedo-boat came steaming round from the harbour to investigate. On sighting the *E 2* she opened fire, some of her shots falling unpleasantly near; so the submarine, instead of turning round and submerging in the conventional way, reversed her horizontal rudders and dived stern first. Furious at losing their prey the island gunners dropped salvo after salvo on the spot where the boat had disappeared, the shell explosions being audible

in the *E 2* as she straightened out at a depth of fifty feet.

On the outbreak of war the whole civilian population of Heligoland was ordered to leave the island at six hours' notice. This evacuation *en masse* was conducted with needless brutality; in fact, although the islanders were loyal subjects of the Kaiser they were treated like enemy aliens. The military governor issued strict orders that all keys to houses, rooms, cupboards, etc., were to be left in their locks. Only a small amount of hand luggage was allowed to be taken, and the exiles were forced to leave practically all their possessions behind.

They were bundled into overcrowded tugs, taken to Altona and Hamburg, and subjected to the rigorous police supervision usually reserved for notorious criminals. This extraordinary behaviour by the Prussian officials was evidently due to panic or war neurosis, for it was never suggested that the people of Heligoland had shown treasonable symptoms or interfered in any way with the military preparations. When they had gone their houses were occupied by officers and men of the garrison, which had been heavily reinforced, and now numbered over five thousand. Many of the officers brought their wives and families from the mainland, to beguile the tedium of garrison duty. Throughout the war they lived in luxury, for there was ample store of provisions and the rationing system was never strictly enforced.

For more than four years the community led a comfortable and tranquil existence, rarely disturbed by the tempest of war that raged about their rock-bound citadel. Once or twice an alarm was raised that hostile ships or aircraft were approaching, and on such occasions all those who were not required at action

stations took refuge in the palatial underground chambers with which the island was honeycombed.

Meanwhile the unfortunate natives, languishing in exile on the mainland, were bluntly told that they would never be permitted to return—and, indeed, many have not returned, for their bones lie mouldering in the shattered hulls of U-boats or embedded in the mud of Flanders. Heligoland, said the Prussian officials, would never revert to its former status. Henceforth it was to be a fortress pure and simple, with defences on a more elaborate scale than ever and new harbour extensions to accommodate half the battle fleet. All this was to happen when Germany had triumphed over the legion of perfidious enemies.

But things turned out rather differently. When the revolution blazed up early in November 1918, "Red" bluejackets landed at Heligoland and founded a local "Soviet." A few days later a group of the exiles at Hamburg chartered a small steamer and returned to their old home. They found everything in confusion; the military governor dispossessed, and mutinous sailors in charge at headquarters. A loyal torpedo-boat which entered the harbour, flying the Imperial ensign, was ordered to sheer off, and guns were trained menacingly upon it. Down to the time of the Armistice the batteries were perfunctorily manned and the crews assured their officers that a British attack would be resisted. But for at least a fortnight before this discipline had gone to pieces, and the brief history of Heligoland as a great naval stronghold was at an end.

When the islanders returned to their homes they were indignant to find how their property had been treated. The better-class houses had been pillaged; every dwelling had fallen into disrepair, and furniture and fittings bore traces of wanton violence. The garrison,

in short, had behaved exactly as if they had been quartered in the heart of an enemy's country. No wonder that the post-war Heligolandiers are filled with bitterness against their Prussian masters, or that a powerful separatist movement set in after the Armistice. Had a popular ballot been taken it must have resulted in an almost unanimous vote for reunion with Great Britain.

Oddly enough, the champions of self-determination and the rights of minorities at the Peace Conference ignored the petition that was presented to the Supreme Council on behalf of the islanders. After recalling the many years when, "under the long and blissful administration of the great British nation, all our rights and customs were always most loyally upheld," the petitioners pleaded for the removal of the grievous injustices which Prussian rule had inflicted on them. The simple eloquence of their peroration deserves to be placed on record:

"We Heligolandiers on our little island in the middle of the sea, far from all the world's commotion, form the very smallest nation which has for centuries maintained its independence and its local customs. We seek neither wealth nor ostentation, but desire and hope to live our lives in our lonely home upon the rocks, in peace and contentment, as our forefathers did before us."

But the plea went unheeded in the innermost council chamber at Versailles, if indeed it ever penetrated so far, and Heligoland still remains a Prussian province. Since the war, however, the island has enjoyed a much milder rule, for it is no longer a fortress and the detested military administration is a thing of the past. This happy change is due to the Peace Treaty, which

decreed the abolition of all the defensive works and the destruction of the war harbour. It took a considerable time to reconvert the great stronghold into the quiet fishing hamlet out of which it had grown, but the work was done thoroughly, and few traces now remain of the massive fortifications which were designed to hold the British fleet at bay.

It is no longer necessary to conceal the fact that the defences of Heligoland as they existed on the outbreak of war were an open book to the British Intelligence Service. The island had been thoroughly surveyed, its armament examined in detail, and most, if not all, of the camouflaged strong points identified and mapped. This information was checked as late as May 1914—only two months before the war—by personal visits, despite the extraordinary vigilance that the authorities were then showing. Two Berlin detectives were stationed on the island especially to prevent espionage, and every foreign visitor, if allowed to land at all, was kept under close surveillance. But notwithstanding these precautions our Intelligence agents were able to compile an accurate and minute description of the fortress.

There can be little doubt that the information thus gleaned was in the possession of Admiral Jellicoe and his staff when they discussed the plan of bombarding Heligoland, and in that case their uncompromising rejection of the scheme will cause no surprise. It was revived at a later period of the war as a means of enticing the High Seas Fleet out of its bases, but again found hardly any responsible support.

If an incident mentioned in several German war books is to be credited, our knowledge of the defences of Heligoland was kept up to date even during the war,

thanks to the intrepidity of British airmen who flew over the island in captured German machines, and, being naturally mistaken for friends, had no difficulty in taking photographs of the batteries and other works. This, it is stated, occurred once in 1917 and twice in 1918.

That an attack on Heligoland, whether serious or feigned, would have lured the German fleet to sea and thus brought about a general action is much to be doubted. Knowing the tremendous strength, nay, the impregnability, of the island's defences, the German naval command would probably have awaited the issue with equanimity, and beyond despatching all available submarines and aircraft to harass the attacking force would not have altered their main dispositions.

On the other hand, an attempt against the North Frisian islands might well have precipitated a great battle, for Admirals Tirpitz and Scheer both stated in their reminiscences that a serious threat to the island of Sylt would have brought the High Seas Fleet out at once. It would be interesting to know whether this fact—if fact it be—was appreciated at the time by the British Admiralty staff, and, if so, why nothing was done to force the decision which we must assume to have been ardently desired. That Admiral Scheer, the Commander-in-Chief, was prepared to take risks when he thought the occasion warranted them is proved by his action in sending out a squadron of battleships to rescue a submarine which had gone ashore on the Danish coast. This occurred in November 1916, and led to the torpedoing of the battleships *Grosser Kurfürst* and *Kronprinz* by the British submarine *J 1*.

In view of this precedent it is a fair inference that the German fleet could have been brought to action at

almost any time we chose, provided, of course, that we were prepared to fight in waters adjacent to the German coast instead of in a position selected by ourselves. Admittedly, the proviso is an important one, and doubtless it explains why we never attempted to "draw" the enemy in the manner indicated above.

CHAPTER XII

ARMAMENTS ON THE QUIET: GERMAN INFORMERS AND THEIR FATE

HAD the visions of universal disarmament which idealists cherished after the Great War been realised, no military secrets would have remained to be discovered, and consequently there would have been no further scope for espionage. But these dreams were not fulfilled. The Central Powers, disarmed by force, displayed much ingenuity in evading the restrictions imposed upon them in respect of their post-war armed forces.

Germany was the worst offender. There can be no doubt that for several years after the war a determined attempt was made by the administration to stultify the disarmament clauses of the Treaty of Versailles. Every possible obstacle was placed in the way of the Inter-Allied commissioners who had to supervise the carrying-out of the Treaty. With or without official connivance formidable stocks of arms, including heavy artillery, were secreted in out-of-the-way places, and while many of these illicit hoards were unearthed by the commissioners, it is probable that more escaped detection.

In not a few cases the Allied officers were put on the track of concealed arms by German informers, some of whom were inspired by political motives, others by mere greed. It was a dangerous game to play, for all over

Germany there were secret organisations which kept a look-out for "traitors" and endeavoured to bring them to book. Between 1919 and 1924 there were half-a-dozen unsolved murder mysteries in Germany, most of the victims of which were believed to have supplied information to the Inter-Allied Commission. In some of these cases, at least, the police hunt for the assassins appears to have been conducted in a very half-hearted fashion.

A signal example of Germany's success in preserving military secrets even at the time when Allied control officers had the run of her arsenals and munition factories may now be revealed. Although we knew, long before the war, the general principles of the fire-control system used in the High Seas Fleet, there were certain details which remained obscure. When, therefore, the German ships came in to surrender, their gunnery equipment was the first item to be examined. It was then found that they had been completely stripped of all control gear, nothing being left to indicate the vital details of the system.

Visits to the factories which had specialised in the manufacture of fire-control instruments were equally fruitless. Not only had production of this material ceased when the Armistice terms became known, but all the instruments in stock had disappeared. The explanation offered—namely, that the reserve material had been exhausted by heavy pre-Armistice demands from the High Seas Fleet—was obviously untrue.

What had happened was this. As soon as the Allies' terms for a cessation of fighting were communicated to the German Government, steps were taken to cover up all the military secrets that need not be disclosed by the surrender of the war material specified in the terms. Thus, while it was not possible to conceal the German Navy's guns, there was no difficulty in removing the

apparatus by which they were controlled in action. So every ship was stripped of its directors, plotting tables, transmitters, and other gunnery instruments before being handed over, and all similar apparatus in store in the naval establishments and factories was hidden away in safe places. As a result the Allied commissioners found the cupboard bare so far as naval fire-control gear was concerned.

But this was not the end of the matter. The German naval authorities had learned a good deal about gunnery in the four years of war, but they had not had time to turn all their knowledge to practical account before the end of the conflict. They were anxious to continue the development of their fire-control system, partly for the benefit of the new navy which they hoped to create when circumstances permitted, and partly for commercial purposes, the sale of naval equipment to foreign Powers having proved a lucrative business. But with Allied commissioners vested with power to enter and inspect any factory in the land, it would be impossible to ensure secrecy of manufacture on German soil.

So the bulk of the fire-control material which had been concealed from the Allies was quietly transported to Holland, and there in due course two factories were established, at Venlo and Hangello respectively, equipped with up-to-date plant and staffed entirely by Germans, the financial control being in the hands of a German syndicate of which Krupps are prominent members. These factories produce between them complete fire-control installations for every type of warship, and they are, of course, entirely free from any form of surveillance. Besides meeting the requirements of the, as yet, small German Navy, they have secured valuable contracts from certain foreign Governments, thanks in the main to clever advertising.

From this it need not be inferred that the secrets of the German fire-control system have remained intact. Most, if not all, of them have been penetrated, and, as I have shown in a previous chapter, the system as a whole is inferior to that which has been developed in the British Navy.¹

That Germany, having lost the war, would lose all interest in the mechanism of warfare was hardly to be expected. The Armistice came at a time when many of the best brains in the Fatherland were concentrated on technical problems relating to the improvement of war material, and that this mental process remained in full operation long after the "cease fire" had sounded is readily proved.

One item of evidence is rather significant. From 1919 onwards the German technical papers printed long lists of "patents applied for" which dealt with various improvements in the design, construction, and equipment of submarines. Five hundred of these applications were counted in less than two years. In 1922 I drew attention to this flood of U-boat inventions in articles which appeared simultaneously in the *Naval and Military Record* and *Lloyd's List*. The effect was surprising. As if at the word of command—which, of course, must have been given—the publication of new submarine patents suddenly ceased, and from that day to this no further mention of any such patent has been published in a German periodical.

Without doubt, hundreds of new ideas for increasing the efficiency of U-boats continue to be filed in the German Patent Office, but their publication has obviously been prohibited. Germany, it is true, is strictly forbidden to construct or possess submarines of any description, but this does not prevent her designers

¹ *Vide* Chapter X, "Big Guns in Action."

and engineers from preparing plans for powerful U-boats against the day when the fetters of the Versailles Treaty are snapped. And there are few Germans who doubt the imminence of that day.

From time to time rumours that Germany is secretly building submarines crop up, particularly in France. In 1923 a circumstantial story to this effect was told to an Allied mission by a German who had worked in one of the Baltic shipyards. He swore that he had seen U-boats on the stocks, camouflaged as cargo ships and tankers. The method, he declared, was to lay down a large merchantman and build up the framework and plating until the hull seemed complete. When this had been done a U-boat was constructed inside the shell, which shut out all view of the actual work in progress. When in due course the hull was launched, the removal of a few sections of skin-plating would disclose a submarine, complete in all respects and ready for her maiden cruise.

This story was plausible enough to merit investigation, but no trace of the hidden submarines could be found. That the method described would be feasible may be admitted. The real difficulty would arise when the boats were completed. How and where could they be concealed? Even a small coastal U-boat is a bulky object which cannot be stowed away in a shed. Nor must it be forgotten that in post-war Germany there are many thousands of people who would not hesitate to expose the existence of secret weapons, because they rightly consider another war to be the most terrible disaster that could befall their country.

There is, indeed, excellent reason to believe that much of the information relating to the progress of German armaments which now reaches foreign Intelligence departments is volunteered by German subjects who

consider it a national duty to circumvent the war-plotters. "Nazis" and "Stahlhelmers" together may number their adherents in millions, but there is nevertheless a strong pacifist element in the Germany of to-day, the presence of which constitutes a safeguard against any treacherous assault on the peace of Europe. While the influence of this anti-war factor must not be exaggerated, it cannot be excluded from any serious survey of the situation in Germany.

Although the most diligent inquiries have failed to establish the illicit building of U-boats, it may be taken for granted that plans for the wholesale construction of submarines at short notice are filed in the Navy Office in Berlin. Only in the last months of the war did Germany complete the mobilisation and co-ordination of her shipbuilding resources for the mass production of U-boats, and by then it was too late. But the Allied control officers who visited Germany after the Armistice were amazed at what they found in the shipyards.

No fewer than 226 new submarines were in various stages of construction, and orders had been placed for 212 more. Had the war lasted another year, therefore, 438 new U-boats would have been added to the 344 which had been built since the outbreak, making a grand total of 782. Nearly 200 had been lost, it is true, but the figures given here convey a graphic picture of the tremendous capacity which Germany possessed for the production of submarines, not to mention other types of naval craft. During the war one yard alone, the Vulcan of Hamburg, built or laid down 126 U-boats, and three other yards—Krupp-Germania, Blohm and Voss, and Weser—each contributed more than 100 boats. The resources which made possible this prodigious output have not only survived the war, but have been substantially increased. Were Germany

free to do so she could easily build 150 submarines in the space of twelve months. It would, of course, be quite another thing to man them with competent crews, though there are plenty of surviving U-boat officers and ratings to provide the nucleus of a new submarine corps.

In setting forth these facts I do not suggest that Germany intends, either in the near or the remote future, to create another U-boat armada for aggressive purposes. I am concerned only to show that it lies in her power to do so. This knowledge is not likely to disturb the slumbers of the British people, who have looked on indifferently while France has been launching submarines at the rate of twelve a year. Nevertheless, it is well to envisage the probability of the Versailles restrictions on German sea-power lapsing at some future date, which may be nearer than we expect.

From time to time protests against these restrictions are heard from Germany, and sooner or later they are bound to be formally challenged. As German critics often point out, except as an emergency measure of brief duration it is illogical to forbid one great Power to possess submarines while all the other Powers, small no less than great, remain at liberty to acquire as many of these craft as they wish. Special emphasis is laid on the fact that practically all Germany's Baltic neighbours, including the three Scandinavian States and even Poland, Finland, and Latvia, have flotillas of submarines. The position is too anomalous to persist indefinitely, though the statesmen of Western Europe have apparently determined to observe a *laissez-faire* policy for as long as possible.

In spite of the almost universal desire for peace which, coupled with financial motives, has led to successive disarmament conferences, it is safe to assume that to-day, no less than in the past, most Governments are taking

the necessary measures to guard against unpleasant surprises. Such measures connote not merely the upkeep of adequate defences by land and sea, but the maintenance of Intelligence departments to keep an eye on the armaments of neighbouring Powers. There have been, in fact, many incidents since the war which indicate that these departments, so far from having closed down after the Armistice, are still carrying on with unabated energy.

If German reports are to be credited, a legion of French secret agents is busy in the Fatherland. It is well known that from time to time the French Government circulates semi-confidential memoranda on German armaments, the activities of the "Stahlhelm" and similar patriotic societies with bellicose aims, and certain branches of German industry, such as the heavy steel and chemical trades, which are believed to be of military significance. These documents are notoriously compiled from the reports of French agents, and it must be admitted that they contain more chaff than wheat. It was information from this source that a few years ago led M. André Lefèvre, a former Minister of War, to raise a scare about the building of U-boats in Germany. He had sufficient influence to set the machinery of Intelligence in motion to comb the German shipyards, but the whole thing proved to be a mare's-nest.

According to German statements, many Belgians and Poles are now employed as secret agents by France. They are to be found in every military centre, they swarm in the chief industrial districts, and they are present in force at every big gathering convened by the "Stahlhelm" and similar organisations.

Even if this be true it must be admitted that the Germans have done their utmost to invite this sort of surveillance. Successive Cabinets have permitted Herr

Hitler to carry the fiery cross to every corner of the Fatherland and to raise a huge force which is an army in all but name. Moreover, by sentencing (in October 1931) to a long term of imprisonment a Pole who had attended a "Stahlhelm" demonstration and written a report about it, the Berlin Cabinet tacitly proclaimed the "Stahlhelm" to be part of the national defences, since otherwise the prosecution was meaningless.

Allusion has been made to the short shrift meted out to German informers when detected by the patriotic societies. Several are known to have been summarily "executed"; others, less fortunate, were barbarously maltreated before being silenced for ever. One of the worst cases was that of a Bavarian law student who was alleged to have supplied information about concealed howitzers to French control officers. This young man, an ardent politician and pacifist, was studying at Munich in 1921. By some means or other he gained knowledge of the existence of the howitzers, and with more courage than prudence he warned the local military authorities that unless this material was surrendered he would publish the facts.

There is no evidence that he held any communication with Allied officers, and it is certain that he never carried out his threat of publication. But he was doomed from the first. Waylaid in the street one night by a party of "patriots," he defended himself vigorously, and escaped with nothing worse than a few bruises. Knowing his life to be in danger he fled secretly to Würzburg, where political friends gave him shelter. But the nationalists must have had an excellent Intelligence service of their own, for they were speedily on the track of the fugitive. Late one night six men forced their way into the house where he lodged. As they wore heavy mufflers and had their hat-brims turned down,

it was impossible to identify them. All were armed with automatics and rubber clubs.

The unfortunate lawyer was dragged out of bed and ordered to dress himself. When he protested, one of the men struck him savagely in the face, damned him for a traitor, and bade him be silent. He was then hustled into an automobile which drove off into the night. The man with whom he was lodging attempted to interfere, only to be clubbed and left half-conscious. On the following day the lawyer's dead body was found in a plantation six miles from Würzburg. It bore the marks of many blows and there were five bullet wounds in the body and head. No member of the lynching party was ever brought to justice.

Another victim of the nationalist gunmen was an ex-soldier named Kayserling, but since he was a paid informer, few tears were shed when he met his fate. He had served in the Prussian artillery, and after the Armistice had actually helped to conceal a number of guns which had been purposely omitted from the returns of material to be surrendered. He revealed the existence of several hiding-places to Allied control officers and was liberally rewarded. Fired with the prospect of easy money, he appointed himself a professional spy. There is no doubt that the information he turned in led to the discovery of large quantities of concealed arms.

Hearing rumours of a concealed hoard of machine-guns and small-arms on a private estate in Württemberg, he contrived to get himself employed as a labourer on one of the farms. By discreet questions to the other men he satisfied himself that the rumours were well-founded, and it was not long before he located the hiding-place. He duly notified his employers, and a surprise visit to the estate by control officers resulted in

the discovery of one of the most important caches which had been unearthed. A tragic sequel to this affair was the suicide of the estate owner, who felt himself to be personally responsible for the loss of the arms.

By this time Kayserling had fallen under the suspicion of the nationalists, and they laid a trap for him. In a Stuttgart café one day he was engaged in conversation by a workman who declared himself an ardent anti-militarist and railed against the hot-heads who were secretly preparing for another war. This man hinted that he could tell a thing or two about some of these preparations which were going on in the neighbourhood if it were made worth his while without risk to his skin. For all his sharp eyes and ears Kayserling must have been deficient in intelligence to have walked into the trap as he did.

Plying the man with drink, he was told of a secret factory at Cannstatt, a few miles from Stuttgart, where military explosives were being produced in large quantities. Having gained this information he affected to be indignant with his companion for talking so freely of the Fatherland's secrets, and warned him to keep his lips sealed in future if he did not want to be "removed" by the nationalists. Kayserling, of course, was anxious that nobody but himself should reap the benefit of the valuable information he thought he had gleaned. He then approached an Allied commissioner to whom he repeated the workman's story, without mentioning the location of the factory, and promised to return in a few days with full details.

That same evening found him at Cannstatt. Although he did not know it, he had been shadowed for weeks past, and his visit to Cannstatt immediately after his meeting with the decoy at the café was proof positive of his guilt. The coincidence that followed ought to

have put him on his guard, though apparently it did not. He had not been in Cannstatt an hour before he fell in with another talkative tippler, who soon began to boast about the mysterious work on which he was employed. Kayserling pricked up his ears and paid for more drinks, until at length the man, far gone in his cups, spoke of the shells and fuses which his factory was turning out at the rate of hundreds a day.

Suddenly he fell silent, refused to utter another word, and lurched into the street. But Kayserling, still lacking the vital information which would give him the location of the factory, would not be shaken off. He walked arm-in-arm with the man, who refused offers of further drink and finally made as if to enter a building where he said he lived.

Desperate by this time, the informer played his last card: he offered his fuddled companion fifty marks if the latter would tell him where the factory lay. He explained that, being out of work, he hoped to find employment at the same factory, especially as he had made munitions during the war.

After some hesitation the other invited him in to talk it over. Kayserling accepted with alacrity and followed him upstairs into a dimly-lit room. Then the door was slammed and bolted, the lights went up, and the spy found himself confronted by a dozen determined-looking men. Almost fainting with terror he was seized and trussed up, and threatened with torture if he did not make full confession.

According to the version of this incident which leaked out months later, torments were actually applied to the wretched man, hot coals being held against his bare feet. Under this ordeal his fortitude gave way. He admitted his own dealings with the Allied control missions and even, it is said, implicated other Germans

engaged in the same work. Then his bonds were removed and he was told to prepare for instant death. A noose was placed round his neck, the end of the rope was cast over a stout beam, and a dozen willing hands hauled him up to the ceiling. What happened next may have been either an accident or a deliberate move to prolong the victim's death agony. In any case, as the rope was being made fast it slipped, and down fell the half-strangled man in the midst of his persecutors.

Mad with terror he was on his feet in an instant, and dodging the hands that clutched at him he hurled himself through the window. He must have been injured by the fall, but he was able to limp some distance down the street before his pursuers came swarming out of the doorway. Although the district was a comparatively deserted one the commotion had begun to attract attention, and Kayserling's executioners thought it prudent to complete their grim work in a less public place. So two cars which had been waiting near by were called up, the prisoner and his escort entered them, and were driven off in the direction of the river. On reaching a secluded spot the party descended and Kayserling was hanged on the nearest tree. Eventually the body was cut down and hastily buried.

Despite the few pains which had been taken to conceal this barbarous proceeding not a word about it appeared in the Press, nor does any official action seem to have resulted. Months later, however, one of the men concerned must have broken silence, for a socialist organisation took the matter up and made exhaustive inquiries in the district concerned. The house to which Kayserling had been lured was visited, but the tenants had vanished without trace. Next, the woods near the Neckar were searched and signs of a grave discovered, but it no longer contained a

body. If this were actually the grave, it was evident that the corpse had been dug up and removed to a more secret place, or otherwise disposed of. It was never recovered.

That Germany has a long memory and recognises no statute of limitation where offences against the Fatherland are in question is made clear by many incidents which have occurred since 1918. In one case a German was placed on trial, charged with having attempted to betray naval secrets as far back as 1912, and was sentenced to twelve years' penal servitude. Several other trials of a like nature have been held in recent years, all relating to events before or during the war, the sentences invariably being most severe.

Post-war infractions of the official secrets law are punished with equal rigour. In October 1931, the editor of *Die Weltbühne*, a radical review, was tried at Leipzig for having published an article which no more than suggested that types of military aircraft were being developed in certain factories subsidised by the State. The writer of the article was also indicted. Both received long terms of imprisonment, and when reporting the trial the German Press was strictly forbidden to quote any extracts from the offending article.

No country is to be blamed for protecting itself against espionage. It may, however, be doubted whether Germany is wise in taking such extreme measures to cope with this evil. Foreign observers are naturally led to assume that things are happening inside her borders which she is morbidly anxious to keep from the knowledge of the world. It is certainly difficult to explain her nervousness on any other grounds. Whether they realise it or not, her rulers, in pursuing this policy of elaborate secrecy, coupled with the relentless heresy

hunt they have been conducting since the peace, are providing the strongest justification for suspicions of Germany's good faith, and, at the same time, furnishing a powerful incentive to all forms of espionage. In other words, the violence of the remedy merely aggravates the disease.

If it be true, as the "Stahlhelm" leaders assert, that Germany is to-day infested with foreign Intelligence agents, they need only review their own actions to establish the cause of this visitation.

CHAPTER XIII

LISTENING-IN: INTELLIGENCE BY WIRELESS

"THE topsy-turvydom of war, which makes it virtuous to kill and to destroy, caused us to embrace without a qualm the occupation of eavesdropping—usually so ignoble. We accepted it as a high vocation, to be obeyed with enthusiasm and pursued with holy zeal, and now that the work is over we can look back on it with pride."

So said Sir Alfred Ewing, the former Director of Naval Education, in the course of his address on the work of that war-time department of the Admiralty which collected and deciphered German codes. When this address was delivered in December 1927, Sir Alfred was severely criticised in some quarters for revealing what had hitherto been regarded as a highly confidential branch of the Admiralty's war organisation. But, indeed, he disclosed little that was not already known to, or at any rate shrewdly guessed by, the majority of those whose business took them to Whitehall during the war.

He might have added that both our allies and our enemies maintained staffs of experts for the deciphering of secret codes. Years before the war the French General Staff created a special bureau for this work; the Italians had a similar branch in full operation previous to their declaration of hostilities in 1915, and the German counterpart was founded in August 1914.

As for the United States—thanks to Major Yardley's book the whole world has been let into the secrets of the "Black Chamber" at Washington, where the most confidential messages and documents of foreign Governments were intercepted and deciphered, in peace-time no less zealously than in war.

All these departments appear to have worked on the general principles outlined by Sir Alfred Ewing. Messages intercepted by wireless listening stations or by other means were submitted to the Admiralty, who were rarely at fault in penetrating their significance. So far as the British Admiralty is concerned, it has been stated that every form of cipher submitted to its experts was read sooner or later, though sometimes the discovery of the key was a long process. "The assumed stupidity of the British was a most valuable asset," Sir Alfred Ewing tells us, "and it was not apparently until the war was over that the Germans became aware how completely their confidential channels of communication had been compromised."

The Germans have also claimed many successes in picking up and deciphering British naval signals and diplomatic despatches. Even the Atlantic cables were not inviolate. Although the cables themselves could not be tapped directly, German submarines are reported to have laid other wires alongside the main cables on the bed of the sea and then read off passing messages by induction.

Most of the German decoding work was performed at a secret station near Neumünster, the headquarters of the naval wireless system. It was situated on a lonely stretch of moorland and surrounded with barbed wire. All signals picked up by Neumünster and listening posts along the coast were at once transmitted to this station. Most of the British messages were based on a two-letter

code key, and although this key was changed every month the German experts generally discovered the new key within a few hours. But for a long time it did not occur to the German naval authorities that since the British cryptographers might be no less proficient than those at Neumünster, their own coded signals were probably being read in London with equal facility and promptitude. There is no doubt, as Sir Alfred Ewing suggests, that Germany's enemies profited by her deep-seated contempt for their intelligence.

A former wireless officer of the Neumünster staff, Commander H. Kraschutzki, has published some account of the work performed at the secret decoding station. In contrast to the British naval code, which was fairly complicated and contained a number of different keys, the German system was remarkably simple. Even if the British had not possessed it from the first, they could, this officer believes, have worked it out in a much shorter time than the various British codes were deciphered at Neumünster. In the German system there were all sorts of regularly recurring groups, and if one was decoded the rest was simple.

Moreover, it ought to have been realised that the naval signal-book might very well have fallen into British hands, considering the number of German submarines which were lying wrecked in shallow water round the coasts of Great Britain. Nevertheless, the German keys remained unaltered for months at a time, and on the rare occasions when they were altered the German wireless experts, if they happened to have forgotten to take the new code with them when they went on duty at the station, could easily work it out from the first signal received. It should, therefore, have been obvious that the British experts could do it just as easily.

But it was not until 1916 that Commander Kraschutski succeeded in getting attention drawn to a memorandum in which he pointed out that any station like Neumünster could decipher any German message within twenty-four hours, even if deprived of all the usual aids, and that any ordinary wireless officer could hazard a shrewd guess at its meaning. Then, at last, a new signal-book was issued, without the faults of the old one, and with a key that was changed daily.

After citing the example of the Dogger Bank engagement, when owing to their interception and reading of German code signals the British were informed beforehand of the strength and plans of the German forces, he shows how wisdom was born of painful experience. Until 1916 no attempt was made to change even the wireless call-signs of ships, which remained the same as in peace-time. They were therefore known to the British authorities, who already had a number of direction-finding stations in operation.

On the eve of the Battle of Jutland it occurred to the German naval command, for the first time, to change the call-signs. Before the fleet put to sea on May 30-31, 1916, the call-sign of the flagship *Friedrich der Grosse*, "D.K.," was exchanged with that of the administrative headquarters at Wilhelmshaven, "U.W." Owing to this stratagem the British direction-finding stations reported "D.K."—i.e. the German fleet flagship—as being still in Wilhelmshaven, and during the first period of the battle the British believed that only the German cruiser squadrons were at sea. Not until the main German fleet was actually sighted coming up from the southward did Admirals Jellicoe and Beatty realise the trick which had been played upon them. The German call-signs had remained unaltered for so long that the change was quite unexpected.

In spite of the marvellous achievements of our decoding experts and the Intelligence Service in general, the enemy did contrive to spring a few surprises of which, apparently, we had no warning. Had we been able, on the very outbreak of war, to decipher the German naval code, we should have read the wireless orders flashed to the *Goeben* and *Breslau* in the Mediterranean, directing them to make for the Dardanelles. Had these orders been known to us the two ships would almost certainly have been caught and destroyed, in which event Turkey might have kept out of the war. Nor, so far as is known, did our Intelligence get wind of the German destroyer raid on the Dover barrage in February 1918. Well conceived and brilliantly carried out, this attack caused us serious losses and temporarily disorganised the newly-illuminated barrage across the Straits.

The attacking force was Captain Heinecke's flotilla, consisting of the newest and most powerful destroyers, most of which were superior to those of the Dover Patrol. All previous raids on the barrage had been made by forces from Zeebrugge, but this flotilla sailed direct from Wilhelmshaven, and in spite of fog in the North Sea it arrived in the straits but little after the appointed time. What happened then is described in the British official history, *Naval Operations*, with a restraint that is more telling than outspoken criticism.

Despite unmistakable indications of an enemy's presence, in the form of bursts of gunfire, loud detonations, and blazing ships, no intelligible reports were made to the Vice-Admiral at Dover, nor were the raiders molested. Eight drifters sunk, seven others severely damaged, and eighty-nine officers and men killed or missing was the toll of this unfortunate night.

During this last year of the war the German Naval

Intelligence was notably active in collecting information and drawing inferences therefrom. The latter, it is true, were sometimes wide of the mark. Admiral Scheer was informed that reports from secret agents, confirmed by the study and analysis of British wireless signals, indicated that many important units of the Grand Fleet had been detached for escort duty, while the fleet itself was short-handed in consequence of the withdrawal of officers and ratings to reinforce the anti-submarine flotillas in the Channel. Both reports and inferences were misleading. That the British Third Battle Squadron had been placed out of commission in March 1918 was quite true; but as this squadron was not an integral part of the Grand Fleet its disappearance had no effect on the strength of the fleet personnel. More accurate were the reports of U-boat commanders to the effect that Grand Fleet battleships and lighter craft had been detailed to protect the Norwegian convoy.

On the strength of all this information, much of which was misleading, the German Commander-in-Chief decided to strike a blow. His plan was encouraged by an assurance from his Intelligence officers that the Scandinavian convoy invariably left or arrived "at the beginning or in the middle of a week," for this convoy and its escort formed his objective. But again he was misinformed. It ought to have been a simple matter for the German Intelligence to ascertain the exact dates of convoy sailings and departures, since their agents swarmed in the Northern lands, and as these dates were arranged strictly by a schedule which was common knowledge in the ports concerned, Admiral Scheer could have timed his stroke to an hour. As things fell out, the faulty information with which he was provided stultified the whole enterprise.

The antecedents of this, the last sortie of the High Seas Fleet, are well deserving of study as an example of the limitations of Intelligence work. April 24 was chosen as the date of sailing. Scheer's plan rested on the assumption that the Grand Fleet was still based at Scapa, yet even on this point, which he would probably have regarded as vital, he was led astray by his Intelligence Service. Since they said nothing to him, they were obviously unaware that twelve days previously the Grand Fleet had left Scapa for Rosyth, which was henceforth to be its headquarters. Had Scheer known of this he might well have hesitated to proceed with his plan, for the Grand Fleet was now in a better position to cut off his retreat.

Not only was he left in ignorance of the change of base at that time, but for many months afterwards the German naval command believed Admiral Beatty's main forces to be still at Scapa. This fact not only reflects severely on the efficiency of German Intelligence work as a whole, but also suggests that the Neumünster wireless experts must have been the victims of a much more elaborate hoax—in the matter of exchanging ship call-signs—than that with which they had deceived the British Intelligence Service on the eve of Jutland.

Dealing with the last sortie of the High Seas Fleet, the official *Naval Operations* has this to say:

“The success of the German plan was, of course, contingent upon the secrecy with which it could be covered, and the problem of secrecy was not easy of solution. The High Seas Fleet had never been able to put to sea without giving some indications of movement; but recently these indications had been very much reduced. Small detachments had entered the North Sea almost undetected, and had so disguised their

movements and intentions that all our dispositions for countering and intercepting them had been based on inference and guess-work.

"If, therefore, the methods for preserving secrecy which had worked so well during recent operations could be made sufficiently embracing to cover a sortie of the High Seas Fleet, there was no reason why Admiral Scheer's plan should not end in a resounding success. For to take the High Seas Fleet to the coast of Norway to sink another convoy and its escorting cruisers under the eyes of the neutral skippers; to overwhelm a battle squadron almost within sight of the Norwegian coastguard stations and lighthouse keepers, and to do all this whilst the British armies in Flanders were reeling under the German onslaught, would be a success of the first order."

By this time the German Commander-in-Chief must have known that the British listening stations had become adept in diagnosing his plans from the numerous wireless signals which, in the past, had always preceded any important movement by his fleet. He therefore drafted his sailing orders as though nothing more than an "airing" in the Bight were intended, and emphasised the necessity of restricting the use of wireless to the absolute minimum. In his own words: "All available ships were assembled in the Heligoland Bight on the evening of April 22 under the pretext of carrying out battle practices and evolutions. The commanders of divisions and squadrons were then given their orders and informed of our intentions for the first time."

The fact that no word of the impending sortie reached the British Admiralty proves the efficacy of these measures. At the very moment when the High Seas Fleet was moving, squadron by squadron, into the

Bight in preparation for its dash to the north, Admiral Keyes with the *Vindictive*, the block-ships, and the rest of his force was leaving Dover to execute the immortal raids on Zeebrugge and Ostend. Further to the north Admiral Tyrwhitt, with the Harwich Force, was patrolling between the Brown Ridge and the Dutch coast, while the Scandinavian convoy of thirty-four ships had just sailed from Selbjorns Fiord, covered by British battle cruisers and light cruisers. In spite of all this liveliness neither side had an inkling of the other's presence. For once our Intelligence Service was caught napping.

This was the more remarkable in that the Admiralty was particularly vigilant in view of the likelihood of some German naval movement to coincide with the tremendous onslaught of the German armies in the west. At no period of the war was the Intelligence mechanism tuned to so high a pitch, and never before had our wireless directional stations listened so eagerly for a whisper in the ether which might betray the enemy's design. Yet from every channel of information came negative reports. On the evening of April 22, Admiral Beatty was informed by the Admiralty that the Bight seemed to be quiet. The fog of war had never been so dense.

Throughout the following day the luck that often attends good management still favoured the German Commander-in-Chief. Shortly after daybreak, just as his squadrons were threading their way through the minefields of the Bight, they ran into a real fog, which extended over the entire North Sea. They were compelled to anchor, but although the delay was irritating it did not seem to be fatal, for Admiral Scheer was still convinced that his presence at sea was not suspected. And he was right. As late as the evening

of April 23 the Admiralty, still without news of anything stirring in the Bight, repeated its "all quiet" assurance to Admiral Beatty.

Yet the news was there, had its significance been realised. As the High Seas Fleet passed out of the Bight it entered the zone in which a constant watch was maintained by British submarines, and at 8 p.m. one of these boats, the *J 6*, sighted light cruisers and destroyers. But the commanding officer mistook them for British forces, nor did he change his opinion when, a few hours later, first battle cruisers and then a long line of battleships swam into his field of vision. Still satisfied that he was watching friends, he sent no message of any kind to Admiral Beatty. It would be unjust to blame this omission, seeing that the captain of the submarine had been warned in his sailing orders of the possible presence of British cruisers somewhere on his "beat."

Admiral Scheer had thus accomplished the first part of his design. He had brought his entire force into the North Sea unobserved, and he had every reason to hope that the rest of his plan would be crowned with success. But had he but known it his good fortune had already deserted him. The Scandinavian convoy which he had marked down as his prey was already leaving the danger zone, and the covering force of battleships and light cruisers which he had hoped to surprise and overwhelm had also passed beyond his reach. The blame for this miscalculation lay with the German Intelligence, whose reports on the time of convoy sailings were inaccurate, though they could so easily have been checked.

Admiral Scheer, however, was still unaware that the blow he had prepared with such skill and ingenuity was destined to be struck at nothing. At daylight on April 24 the High Seas Fleet was some sixty miles to the south-

west of Stavanger. The battle cruisers were scouting in advance, when the *Moltke* suddenly reported a serious accident in her engine-room. She had lost a propeller, and the madly-racing engines had caused much damage before they could be stopped. With several compartments open to the sea she could only steam on one set of turbines, and as the water rose it was found necessary to draw the fires under all boilers. The great ship was therefore completely disabled.

This accident had momentous consequences. As it was necessary to report the *Moltke's* breakdown to Admiral Scheer, who was some twenty miles further to the southward, the German ships had to break the wireless silence which they had strictly observed ever since leaving port. The signals thus exchanged were instantly caught by our directional stations, and with scarcely any delay the Admiralty was informed that what appeared to be a powerful force of German ships was off the south-western coast of Norway. From the call-signs and other messages which continued to be intercepted it was clear that some major operation was in progress.

Here, in justice to our Intelligence officers, I may mention that several hours before the German wireless began talking the Admiralty had been warned that something suspicious was happening either inside the Bight or further towards the north. Since at this time no signals had been intercepted nor any message received from our Bight patrols, the warning must have been based on news from Intelligence agents, either in Germany itself or some territory near by. Whether the Admiralty would have acted on this vague information alone may be doubted, though our Naval Intelligence was not in the habit of raising an alarm without good cause.

But, as we have seen, confirmation was soon forthcoming from the wireless of the High Seas Fleet itself, and at 10.45 a.m. on the 24th the Grand Fleet was ordered to sail from Rosyth to concentrate east of the Long Forties. At the same time a signal was flashed to submarine *E 42*, then on the south-eastern side of the Dogger Bank, instructing her to proceed at full speed to a certain junction point in the maze of channels through the minefields fringing the Bight, where she might hope to waylay the enemy on his homeward route.

Meanwhile the German scouting forces had reached the convoy route, only to find the sea absolutely bare. They therefore turned back to rejoin Admiral Scheer, who had also changed his course and was now steering in the direction of home. He had evidently realised that since the wireless silence had been broken his plan was no longer practicable, for all shipping would have been warned of his presence and the Grand Fleet must even now be on its way to intercept him. Deprived of the U-boat screen and the Zeppelin reconnaissance which he regarded as indispensable to his battle dispositions, he had no intention of accepting action with the Grand Fleet. So the carefully-planned "enterprise towards the Skagerrack" on which he had built such lofty hopes was abandoned, and his whole force turned back.

The retreat was hampered by the disabled *Moltke*, which the battleship *Oldenburg* had taken in tow. As the German squadrons approached the swept channel they were sighted by submarine *E 42*, which had reached her place of ambush well in advance of them. Having manœuvred into a favourable position she fired four torpedoes at the long line of great ships, and a muffled explosion announced a hit. One torpedo had taken

effect on the *Moltke*, but so strongly was the battle cruiser built that in spite of this further damage to her partly-flooded hull she contrived to struggle into port. *E 42* herself had a narrow escape from the depth-charges which were lavishly sprinkled about her by the German destroyers.

The rest of the High Seas Fleet got in without misadventure. It was never to make another war cruise, for the desperate sortie planned for the following October was frustrated by the revolt of the sailors. But if the operation described above achieved no concrete results, it is nevertheless of great interest as an example of the decisive part played by Intelligence work in all movements at sea during the war.

On this point the official historian is explicit: "This sortie had been planned and executed with great skill; from first to last we were completely baffled, and if Admiral Scheer's intelligence had been more accurate, he would have had an excellent chance of doing enormous damage. Supposing that he had taken his fleet north twenty-four hours sooner or twenty-four hours later, with the same secrecy, he would then have fallen in with the convoy that left Slotterö on the 22nd, or the convoy which left Methil on the 24th; and our first warning of his presence off the Norwegian coast would have been news that a convoy had been destroyed and its covering forces overwhelmed."

As it was, the failure of the project is directly traceable to faulty Intelligence work. Instead of demanding from his Intelligence officers the precise dates on which convoys left the ports of assembly on either side of the North Sea—information which could easily have been obtained—Admiral Scheer was content to base his plans on guessed data which proved to be inaccurate.

Much more care had been exercised in preparing the

earlier convoy raids, in October and November 1917, respectively, both of which achieved a large measure of success, despite the fact that on the first occasion, at least, we were forewarned of an impending movement and took elaborate steps to circumvent it.

In another theatre of naval warfare the Germans had delivered, a few months before, a well-planned stroke which might have brought them a striking success but for sheer bad luck. The German staff at Constantinople had established a very efficient system of naval intelligence embracing the Eastern Mediterranean. They appear to have known to a nicety the strength and disposition of the Allied naval forces at any given moment, and considering what those forces were it is only surprising that the raid was deferred for so long.

Although the *Goeben* and the *Breslau* had not been outside the Narrows since August 1914, their presence in the Sea of Marmora was a standing menace to the British squadron in the Ægean, which contained no ship of a power equivalent to that of the big German battle cruiser. Had she slipped out unobserved she might have wrought untold havoc before being brought to book. It was therefore necessary to maintain an unsleeping watch on the Dardanelles. It is true the approaches were heavily mined, but on any dark night it would have been possible for the enemy to sweep a channel in readiness for the *Goeben's* emergence at her selected moment.

When nearly three and a half years had elapsed without her appearing, our local commanders might have been forgiven had they ceased to worry about her. But there is nothing to suggest that their vigilance was relaxed when, at length, the long-anticipated sortie took place in January 1918. Detailed orders had been

drafted to meet the emergency. It was assumed that if the *Goeben* did break out she would try to make for the Adriatic, there to join hands with the Austrian fleet. Our naval staff did not anticipate an attack on the British bases in the Ægean, yet that is precisely what the newly-appointed German Commander-in-Chief of the Turkish fleet, Admiral von Rebeur-Paschwitz, had decided to attempt.

He knew from Intelligence reports that the only British capital ship within reach was H.M.S. *Agamemnon*, to which the *Goeben* was vastly superior in armament and speed. Apart from this battleship he would encounter nothing more formidable than monitors, light cruisers, and destroyers. He knew, also, of the existence of our minefields off Sedd el Bahr, which had, indeed, been secretly surveyed on moonless nights by his submarines and torpedo-craft. But there his knowledge ended. Unknown to the enemy our minelayers had built up a vast barrage across the expanse of water between Imbros and Gallipoli, which the *Goeben* must traverse to reach her objectives.

Almost on the eve of sailing a hint of this unsuspected ambush reached the German admiral. A chart captured from a wrecked British patrol craft came into his hands and was found to bear pencilled marks which might or might not indicate new minefields. Some members of the Admiral's staff took a serious view of this discovery and recommended a fresh survey of the proposed route before the squadron sailed. But since secrecy was an essential condition of success, and any further reconnaissance or mine-sweeping operations would inevitably arouse suspicion, Admiral von Rebeur-Paschwitz decided to carry on according to plan.

At 6 a.m. on January 20 the *Goeben* and the *Breslau*

were clear of the Dardanelles without having been detected. Their exit was favoured by the misty weather, and all seemed to be going well when suddenly a mine exploded under the *Goeben's* bows. She had, in fact, blundered into one of the new mine barriers indicated on the captured chart. The explosion, however, seemed to have caused no serious damage, and the Admiral refused to be deflected from his plan.

Shortly after this incident the two ships were sighted by our patrols off Kusu Bay, and the code word "Goblo," signifying that the German squadron was out, was immediately flashed to all commanding officers. But the surprise was complete, and before anything could be done the look-out station at Kephalo, the big monitor *Raglan*, and her smaller consort *M 28* were under a murderous fire. Both the ships were disabled before they could make an effective reply, while the Kephalo station was practically demolished.

Elated by this initial success the German Admiral steered towards Mudros, which he proposed to bombard. But it was now that the unforeseen contingency made itself felt. When the first mine had exploded all the *Goeben's* compasses had been deranged, so that the ship's course had to be set by sextant angles. As a result, the squadron steered too far to the eastward and soon found itself involved in the mine barrage between Sedd el Bahr and Cape Kephalo. At 8.30 a.m. the *Breslau* fouled a mine, and as the *Goeben* approached to pass a towing hawser she, too, was shaken by a violent explosion which caused serious damage.

The position of the squadron had now become highly critical. More mines were going up round the *Breslau*, which was seen to be sinking, and the *Goeben* was forced to abandon her doomed consort and seek safety in

flight, pursued by British aeroplanes. Although navigated with marked skill she struck yet another mine, and on approaching Nagara Point she was seen to be heeling over to port. Whether in consequence of her injuries or of an error in navigation, she suddenly swerved away from the channel and ran hard aground. There she remained for six days, during which she was bombed repeatedly by aircraft and received many hits but no serious damage. The failure of this prolonged air offensive raises serious doubts as to the potency of aircraft against well-protected capital ships.

Towed off the sandbank by an old Turkish battleship on January 26, the *Goeben* returned to Constantinople. Here she was patched up, but the injuries she had received from mines kept her out of action for the rest of the war. A British submarine, *E 14*, which had been sent into the straits to torpedo the stranded battle cruiser, found her gone, and on the return voyage *E 14* herself was fired at and sunk by the Turkish batteries near Chanak.

Although the raid had resulted in the destruction of two British monitors and a submarine, from the German admiral's point of view it had been a failure. With the *Breslau* sunk and the *Goeben* too severely damaged to be repaired with the facilities available at Constantinople, the German squadron had virtually ceased to exist, and a standing threat to our forces in the Aegean was thus removed. The Turks were very indignant with Admiral von Rebeur-Paschwitz for risking the ships which they regarded as their property, and he was forbidden to attempt any further sortie. Since the British naval authorities were naturally ignorant of this, they resolved to seal up still more effectively the exit from the Dardanelles, which was done by secretly laying mines in new and unsuspected positions.

The *Goeben's* last raid is chiefly of interest as showing how an operation preceded by well-co-ordinated Intelligence and staff work may yet be frustrated by a contingency which could not possibly have been foreseen.

CHAPTER XIV

WAR ADVENTURES OF A BRITISH AGENT IN A GERMAN NAVAL BASE

FRIENDS and enemies alike have borne testimony to the marvellous efficiency of the British Naval Intelligence Service during the war. It was undoubtedly the most perfect organisation of its kind the world has ever seen, and the part it played in defeating our enemies is now a matter of history.

Viewed in the light of recent disclosures its methods have lost something of the glamour of mystery which formerly surrounded them. It is known, for example, that German code messages intercepted by our directional wireless stations enabled the Intelligence Division to forecast German naval movements with a precision which, to those not in the secret, seemed positively uncanny. Thanks to their indiscreet use of wireless when at sea the German submarines themselves kept us fairly well informed of their doings, and the task of our I.D. experts was further simplified by the German Admiralty's habit of continuing to employ signal codes long after these had been deciphered by our cryptographers.

On the other hand, it would be quite wrong to suppose that all the successes of Naval Intelligence work in war-time were achieved by mechanical means. All through the war we urgently wanted information about many naval matters on which the German wireless remained silent. Neumünster, the German

naval wireless headquarters, could be garrulous enough when a projected sortie by the High Seas Fleet, the sailing of a disguised raider, or the start of a secret minelaying expedition was in question, but it had nothing to say about the progress of German naval building, the repair work in hand at the German dockyards, or the morale of the personnel in the High Seas Fleet. Information of this kind could be gathered only on the spot, yet there was no lack of it at any period of the war.

There is probably only one man now living who knows exactly how, and by whom, this information was obtained, and he is not likely to divulge the secret. It is possible, nevertheless, to shed some light on the operations of the Intelligence Service behind the enemy's lines. The work was, of course, extremely dangerous, and not a few of those who engaged in it paid the penalty with their lives. Courage alone was not sufficient to achieve results. An intrepid agent might gain access to a German dockyard, or even to a German man-of-war, but unless he knew what to look for and could appreciate the significance of what he saw he risked his life to no useful purpose. One of the most daring men we had in Germany went everywhere and saw practically everything, yet he turned in very little information of real value, simply because he lacked the requisite technical knowledge and the patience to acquire it.

An old-world Kentish garden seems an incongruous setting for a recital of Secret Service experiences in war-time Germany, but it was there that I heard the story that follows. It is, I believe, the first authentic narrative of the kind which has ever appeared in print.

"You know [said my companion] that I had dabbled in Intelligence work for our people from 1910 onwards, and what my qualifications were. Towards the end

of July 1914 I was in Munich. It was already pretty clear that trouble was brewing, and I had arranged to leave for Italy on the 28th. On the evening of the 26th, when I was packing, a visitor was announced, and to my intense surprise C—— walked in. He was quite the last person I expected to see. We had met only two months previously in his office near Whitehall, where I had imagined him to be at that moment.

“He said we should be at war with Germany inside a week, and then asked me whether I was prepared to remain in the country and undertake Intelligence work. At first I refused point-blank. Not only were the risks appalling, but I could not see how it would be feasible to get information through to England. But C—— talked me over. By remaining where I was, he said, I should be performing the greatest possible service to my country. It was absolutely vital that our people should be kept advised of German naval plans and movements. Moreover, if I could supply the necessary information I need not worry as to how it was to be passed on; that would be arranged.

“As for remuneration, I should have no reason to complain, and the prospect of a commission was held out as a special inducement. My private opinion was that in a month or two I should have ceased to be interested in such matters, and, indeed, in mundane affairs at all. C—— suggested various methods for concealing my identity. Eventually we decided that I should be an electrical fitter, hailing from Munich. I had a sound knowledge of electrical engineering, could handle tools quite well, and my German was said to be very good indeed. Once I was in Prussia any slight solecisms of speech would be set down to my Bavarian origin.

"C—— promised to let me have a complete set of identity papers and employment references within four days. Although he did not tell me, I discovered later that these were obtained in Zurich, where a couple of enterprising Swiss specialised in the fabrication of passports, etc. For years they had done a brisk business among Russian refugees and other political exiles; but their golden opportunity came with the war, and they took full advantage of it. In 1917 one of the pair retired with a fortune of £150,000. His partner stayed in the business, and for all I know may be in it still. They had their own code of ethics, and boasted that they had never supplied spurious papers to any fugitive criminal. Quite possibly, however, their definition of 'crime' was somewhat elastic. As for their workmanship, I can only say that the papers I had from them would, and more than once did, deceive the keenest-eyed passport official.

"The immediate problem before me was how to lie low for the succeeding four days. With Germany obviously on the verge of war and the first symptoms of virulent spy fever making themselves evident, it would not do for an Englishman to be walking about openly; yet without the necessary papers it would be dangerous to pose as a German. After much cogitation I decided to effect a temporary disappearance. It was arranged that I should meet C——'s messenger with the forged papers at a café in Pasing, on the outskirts of Munich. He was to be there punctually at noon on July 30th, and a simple method of mutual recognition was arranged. This person, C—— assured me, was entirely trustworthy.

"I was given an address in Hamburg to which I could send reports until such time as other instructions reached me. All messages were to be written in a code

which was given to me there and then. It was simple but very ingenious, being based on one of the trade catalogues of a great engineering firm, and, I should say, absolutely unreadable without the key. C—— also handed me £300 in German notes. Additional funds were to be placed at my disposal by an agent who would make contact with me later on. I had better say at once that the arrangements for transmitting news to England and keeping our Secret Service men in Germany supplied with instructions and cash worked faultlessly all the time I was there. How it was done I need not disclose, but the staff work was perfect. The man who organised it all is now a senior partner in one of the big accountant firms in the City.

“C—— and I now parted. He was overjoyed at my acceptance of the mission, and talked a great deal about my courage and patriotism. But I had, nevertheless, a feeling that, paradoxical as it may sound, I had sunk in his estimation by agreeing to act as a spy. Possibly I was doing him an injustice. He had come all the way to Munich to enlist me in this service; he had found me intensely reluctant to engage in it, and it had taken him a long time to break down my resistance. In the end I had allowed myself to be persuaded mainly because of his positive assurance that in no other capacity could I serve England so usefully.

“And yet, as I say, as soon as I had agreed to take up the work I thought I sensed a subtle and unflattering change in his attitude towards me. If this were so it is but another instance of our illogical mentality, for I happened to know that a year or two previously C—— himself had toured the German naval ports in quest of information. In any case, I did not take his change of manner to heart. A man is the keeper of his own

conscience, and I had satisfied myself that the work before me represented my plain duty. I have only mentioned the matter because you will find that almost everybody who has done Intelligence work 'at the front'—that is to say, not merely from an office in Whitehall—has experienced the same silent disapprobation even from those who were foremost in urging them to undertake it as a patriotic duty.

"Anyway, C—— and I parted amicably enough, not to meet again until after the war. Returning to my apartment I repacked my things. I kept only a small, shabby valise; all my other belongings went into two trunks which I forwarded to a friend in Milan. Next I purchased a complete outfit suitable for a German artisan of the better class. To be on the safe side I went to the police station to report myself as departing for Italy. In view of the tense political situation I suspected that the police would already be keeping a sharper eye on foreign residents.

"That afternoon, wearing my new clothes, I left Munich for Regensburg. I put up for the night at a humble inn, and in the morning bought a bicycle. The next three days I spent cycling back to Munich by a roundabout route, which led me through Ingolstadt and Augsburg. A workman on a bicycle was the last object to arouse suspicion, and although the mobilisation order was now expected at any moment I was never once challenged nor asked to show my papers.

"I reached Munich in the forenoon of the 30th, and, giving the locality where I had lived a wide berth, made my way to Pasing. As soon as I entered the café I saw C——'s messenger. Having made the agreed signal, to which he responded, I drank some beer and then strolled out. The other man followed me, and when I turned down a quiet street he came up to me

and handed over the papers. Then, with a sotto-voce 'Good luck!' in English, he left me. To this day I have no idea who he was.

"C—— had advised me to make for one of the North Sea ports, either Hamburg or Bremen. Eventually I was to do my utmost to obtain employment in Wilhelms-haven itself, the chief war base of the High Seas Fleet, and therefore the best centre for picking up naval information; but we both recognised that to proceed there at once might be indiscreet. Meanwhile I needed a little time in which to rehearse my new part. With the bogus papers I had received there was quite a lengthy dossier, detailing my 'personal history' almost from infancy down to the past week. It was either a masterpiece of informed imagination or else, as I suspect was the case, the life-story of some actual German who had probably died quite recently. Anyway, it was a perfect 'cover,' and after studying it for a time I began to feel more confident of my ability to escape detection.

"But I will not disguise from you that at this date, and indeed for weeks afterwards, I lived in a constant state of terror. I slept badly, suffered from chronic nightmares of the most ghastly description, and expected to be denounced every time a stranger glanced in my direction. Worst of all, I had periods of virtual amnesia—mercifully but short—in which I could not remember a word of German. By the grace of God these never occurred at critical moments. Gradually the nervous tension relaxed; I settled down to the work, and countered my dread of the firing squad by carrying several doses of poison concealed in various parts of my person. When emergencies did arise I was equal to them. Long-continued immunity gave me confidence, but I can truthfully say that to the very

end I observed every precaution and never made a slip through carelessness.

"Upon reflection I decided to travel part of the distance to the north on my faithful bicycle. It was an inconspicuous way to move about and it insured me ample solitude in which to accustom myself to my new personality. So I set off that same evening (July 30th) and rode by easy stages through Ingolstadt, Nuremberg, and Würzburg to Frankfort-on-Main. It took me the best part of a week, and long before I reached Frankfort the war was in full blast. Things had now become dangerous, for at any moment a policeman might stop me and ask why I, an able-bodied man, had not been called to the colours. What I needed was some endorsement on my papers exempting me from military service. Such exemptions, I had heard, were being given to skilled workmen, but I had no idea how to proceed in the matter. Obviously, therefore, I must get to Hamburg without further delay and find C——'s agent.

"So at Frankfort I forsook my bicycle and took train for the north. It was a tedious journey, for we were continually being held up by military trains carrying troops, guns, etc. One could not help secretly admiring the smoothness with which the whole business worked. I had always known that we should be up against it in the event of trouble with Germany, but it was awe-inspiring to watch with one's own eyes the cold, relentless precision with which this gigantic war machine was getting into its stride.

"I reached Hamburg on August 7th—three days after the British declaration of war, and went straight to the address C—— had given me. As I walked upstairs and knocked at the door my heart was in my mouth. I knew nothing of this man to whom I was

going to reveal my secret. He might have double-crossed us, or, what was just as likely, he himself might be in the hands of the police, who perhaps were waiting for me behind the door. But my fears were groundless. Half-an-hour later I left the house with an official certificate exempting me from military service for three months, and bearing in my head simple instructions relating to the transmission of my reports.

"This Hamburg agent was a marvel. I never discovered his identity, but I believe he was the English son of a German mother. Nothing could upset his composure. On one occasion—to anticipate matters a little—he and I were sitting in a café in Kiel. It was in the second year of the war. I had reason to believe that I was under suspicion, and G—— himself told me that his Hamburg office had recently been searched in his absence. At any moment, therefore, we might have been arrested, and that would have meant death.

"Sitting in that café I had to summon up all my will power to preserve a calm exterior. At a table near by was an individual in whom I thought I recognised a detective. All round us were officers of the army and navy, with their ladies. I told G—— of the detective's presence. He never turned a hair, but went on discussing the latest war news with so much animation that some of our neighbours glanced in our direction. Then, to my horror, he began a mild altercation with the waiter about the bottle of wine we had ordered. We had thus become conspicuous, and I was cursing G——'s folly under my breath.

"Just then a rear-admiral entered the room, with two other officers. They were passing near our table when G—— started up and, brushing the waiter aside, walked towards the flag-officer with outstretched hand,

exclaiming, 'Ach, Herr Admiral, what a pleasure to see you again!' The officer smiled genially and shook hands with G——, who accompanied the party to their table and remained with them for some minutes in lively conversation. When he returned to me he had precisely the air of smug satisfaction which a German civilian would display after being accorded the honour of hobnobbing with an officer of high rank. By this time I was past surprise, but I could not help noticing that the detective had vanished. No doubt he had concluded that persons who were friendly with admirals must be beyond suspicion.

"It would make too long a story to tell you of my work in detail. Two days after meeting G—— I was taken on at the Vulkan Yard in Hamburg as an 'Elektrotechniker' and worked for twelve months in various ships they were building, from battleships to destroyers. I was frequently sent to Wilhelmshaven on urgent repairs, and once as far as Danzig to do some wiring in a cruiser which had stopped a Russian shell. All sorts of information came my way, and I wrote scores of reports, all of which went to G—— in Hamburg. Finally, in November 1915, I became an employé in the dockyard at Wilhelmshaven, and remained there for two-and-a-half years.

"It was there that I saw the ships come in after the Battle of Jutland, and a week later I had sent G—— a full and accurate report of the damage received by practically every ship in the yard. Since the war I have often laughed over the fantastic legends spread by German historians. The predominant feeling in the German fleet after Jutland was one of profound surprise and relief that they had escaped annihilation. Moreover, they had suffered very heavily, for while the strong construction of the ships had kept most of

them afloat it had not saved the crews from the effects of cordite fires and shell splinters.

"For more than a week after the battle corpses and mangled human remains were being taken out of turrets and lower compartments. In the *Seydlitz* alone it took a fortnight to recover all the dead, many of whom had been trapped in the forward part of the ship when the bulkheads gave way.¹ They could not be reached until the holes in the bow had been patched up and the compartments pumped dry. Over a thousand funerals took place in the first week after the battle, and the flamboyant official communiqués claiming a great victory were in strange contrast to the atmosphere of funereal gloom that hung over Kiel and Rüstringen.

"At Christmas 1917 I had several days' leave and went to Hamburg to meet G—. For the first time he broke his rule and introduced me to two other agents, one of whom was an obvious German. It came out at the conference that the latter, whom we called Carl, had worked out a scheme for causing an explosion at Dietrichsdorf, the depôt near Kiel where most of the navy's ammunition was stored. Carl produced a plan of the place, which was situated in fairly open country and covered about 150 acres. He showed us three buildings which he said contained five thousand tons of nitrocellulose powder. They were separated by lofty embankments, but the theory was that if one building went up the tremendous concussion would touch off the others.

"Carl had established relations with a man who was suffering under a grievance, and who had revealed an easy method of getting into the depôt at night. It was heavily guarded, and a sentry or two would have

¹ During the battle the *Seydlitz* was heavily damaged forward by gunfire and torpedo. She returned to port with her lofty fore-castle under water.

to be silenced before anything could be done. Briefly, the plan was for Carl and another of us to make our way into the dépôt just after midnight, when the shifts were being relieved, and deposit bombs with time-fuses in the two main powder stores. If a sentry appeared he was to be knocked on the head. As the raiders were to be dressed in the canvas overalls and list slippers which were worn by all the staff they would probably be mistaken for employés, and therefore should have no difficulty in approaching a sentry near enough to deliver a knock-out blow with the small but deadly type of bludgeon which Carl exhibited.

"We discussed the plan for hours at a time. It seemed feasible enough, and Carl was supremely confident of success. In the end G—— decided that I was too precious to be risked, and the other man, whom he called Richard and who appeared to be English, was told off as Carl's confederate. Months later I heard what had happened. Carl and Richard went to Kiel, where they spent two or three weeks surveying the country round Dietrichsdorf and talking over details with the man who had a grievance. The night they fixed for the enterprise was moonless. They slipped out of Kiel and walked to Dietrichsdorf by a devious route, reaching the wire barrier a quarter of an hour before midnight.

"They got through without much difficulty, and then made their way towards the first of the big powder sheds. Carl actually got inside, and was just about to deposit his bomb when he saw hundreds of big projectiles stacked in rows. It was a shell store, not a powder magazine. They had evidently mistaken their way in the darkness.

"What followed is of psychological interest. Had Carl been English he would have planted his bomb

in the room and hoped for the best; but, being German, he argued to himself that since the effects of the bomb detonation on the shells was problematical, he was not justified in leaving his infernal machine there. He was obsessed with thoughts about kinetic energy and the sensitivity of T.N.T. as compared with nitro-cellulose, and not seeing the wood for the trees missed a wonderful opportunity. As a matter of fact, had he placed his bomb (which contained 20 lb. of amatol) on top of the nearest row of projectiles there is not the slightest doubt that it would have touched off everything in the building.

"As it was he stole outside to where Richard was waiting, and they risked switching on their torch for a second to consult the map of the place and get their bearings. But the light betrayed them. A sentry challenged, and not satisfied with Carl's reply came forward to investigate. The latter aimed a blow at him, but the bludgeon missed his head and he lunged forward with the bayonet, which pierced Carl's coat. As the two men ran off the sentry fired three rounds rapid. Richard stumbled and fell, but was up again in an instant, running with undiminished speed. But not for long. Suddenly he stopped dead, slowly sank to his knees, and said to Carl, 'I'm done; got one through the back; no good staying; you bolt.' Then he had a bad hæmorrhage, rolled over on his side and lay still.

"Carl saw that nothing could be done, so he continued his flight. By now the whole place was alarmed. A searchlight mounted on a tower was methodically quartering the ground, but Carl dodged the beam by crouching under an embankment. Then, as it moved away, he took to his heels again and soon reached the

wire. He was several minutes finding the way out, but discovered it at last and got away unseen. All that night and for most of the next day he lay in hiding, for patrols were searching the countryside. When at length he got back to Kiel he found the city buzzing with excitement at the news of the raid.

"Richard's body had been found, but as there was absolutely nothing by which it could be identified the corpse was buried as that of an unknown spy. After this attempt the guards at the ammunition depôt were doubled and the whole premises girdled with live electric wires. The bombs which had been left on the ground were found to be military demolition charges. Carl was very downcast at the failure of the raid. When he told the story to G—— the latter rated him soundly for not having left a bomb in the shell store, but he still argued that it would not have produced a big explosion.

"Although a man of immense courage he was apt to be stupid at times. Subsequently, I believe, he was concerned in the destruction of the Alhorn Zeppelin base, for which piece of work he was richly rewarded. I have no idea why he turned traitor to his country, but he did not strike me as the sort of man who would do so purely from motives of greed.

"In May 1918 my health broke down. The strain had become too much for me. I was given sick leave from the dockyard and sent to a convalescent home near Oldenburg, where most of the patients were munition workers. Here my nerves threatened to give way entirely; my constant dread was that I might talk in my sleep, and even a word or two muttered in English would give me away. At last I could stand it no longer, and did a very foolish thing.

One day I walked out of the home without speaking to anybody, went to Oldenburg and took train to Hamburg. There I went straight to G—— and begged him, for God's sake, to get me out of the country. He must have seen I was at the end of my tether, for instead of pitching into me for deserting my post he was kindness itself.

"But he did warn me that I had placed both of us in extreme danger. It was possible, of course, that my flight from the convalescent home might be attributed to shell-shock, in which case there would be no pursuit. But G—— judged it best to take no risks. He found me a room in an obscure part of the city and forbade me to stir out of it until I got the word. Then one evening, a week later, he came for me and took me to a waterside tavern, where we met the skipper of a Swedish steamer which had brought a cargo of iron ore from Gothenburg. I was introduced as a German deserter, who was anxious to leave the country till the war was over.

"After much haggling the skipper agreed to take me on board as a 'stowaway' for two thousand marks (£100). After all, he was not running any grave risk, for if I were discovered he could disavow all knowledge of me, and I had solemnly sworn not to disclose his complicity. So I was packed away in the hold, and next day the steamer proceeded down the river to Brunsbüttel. Thence she passed through the Kaiser Wilhelm canal and so into the Baltic. When we were well out at sea I allowed myself to be 'discovered.' In the hearing of his men the captain threatened to hand me over to the police when he got to port. But by this time I was exceedingly ill, and looked it, and the kind-hearted Swedish sailors advised me not to

worry, as the captain's bark was worse than his bite. I, of course, knew I had nothing to fear.

"There was no difficulty in getting ashore at Gothenburg. I rested there a few days and then travelled to Stockholm, where I made myself known to the British authorities and got into touch with headquarters at home. There was some talk of my returning to Germany after taking a long holiday to recuperate, but I had had enough. In due course I arrived in England, and had no reason to complain of my reception. They were exceedingly pleased with my work, as well they might be. I was able to supply them with the latest information as to the High Seas Fleet and the state of affairs at Wilhelmshaven generally. Even before I had left there were obvious signs of disintegration among the German crews, and still more among the dockyard staff, which included a number of avowed Communists.

"So far as I can judge I was never seriously suspected. There were several awkward moments during my thirty months at Wilhelmshaven, but luck or presence of mind, or both together, brought me through safely. I saw everybody of any note in the German naval world, from the Kaiser and von Tirpitz downward, and once did some repairs to the electrical fittings of Admiral Scheer's day cabin on board the fleet flagship, *Friedrich der Grosse*.

"My impression is that the High Seas Fleet was at its best during the summer of 1916—that is, after Jutland. It had been badly hammered in that battle, it is true, but the result had given the men confidence in their ships, and they were quite willing to risk another fight. But when the fleet went out again in August, only to scuttle back to port for no apparent reason,

the men got it into their heads that the naval staff had vetoed another big action. Thereafter the fighting spirit of the men began to decline, and the mutinies at Wilhelmshaven and Kiel in July 1917—which were much more serious than was known in England—paved the way for the final débâcle in October of the following year.”

CHAPTER XV

DAVID AND GOLIATH: THE SLAYER OF BATTLESHIPS

A MODERN naval battle on the grand scale presents a panorama of such magnitude as to bewilder and confuse the spectator. Even if viewed in retrospect, with the main events co-ordinated and displayed in proper sequence, it leaves but a vague impression, and individual judgment of the event as a whole is apt to be distorted by the undue if unavoidable prominence of incidents which may be spectacular without being really significant. It is, therefore, a relief to turn occasionally from the contemplation of great battles to that of episodes which appeal to our sense of the dramatic and, at the same time, afford us a close-up picture of the human and material factors which govern every operation of war.

I propose in this chapter to relate in some detail a series of Italian naval exploits which deserve a wider recognition than they have yet received. Apart from their interest as a revelation of how courage and determination may achieve extraordinary results with small material means, they show, in one instance at least, how a great naval operation was frustrated by the daring deed of an Italian seaman.

Previous to Italy's entry into the war she had reinforced her navy with a number of "mosquito craft," considered to be well suited to the exigencies of campaigning in the relatively narrow waters of the Adriatic. Among them were the so-called "M.A.S." boats

(an abbreviation of "Motobarche Anti-Sommergibili," or anti-submarine motor-boats). Hundreds of these tiny craft were built, ranging from 15 to 30 tons. Speeds up to 40 knots were attained, but in the earlier boats the speed at sea in normal conditions did not often rise above 20 knots. But although so tiny they were armed with a sting in the form of two torpedoes, and a few depth-charges were carried for use against enemy submarines. An officer and half-a-dozen men formed the crew.

It was with one of these M.A.S. boats that Lieutenant Rizzo made history. An officer of the Italian merchant marine and of the naval reserve, he spent most of his war service in patrolling the Adriatic. But he chafed under the monotony of routine, and more than once incurred a reprimand for leaving his regulation "beat" in search of adventure. He importuned his superiors with schemes for breaking into the Austrian harbours and torpedoing ships at anchor, but as these bases were supposed to be impregnable it was long ere his proposals were taken seriously.

But at length his chance came. In November 1917 the Italian army suffered the reverse of Caporetto and was forced to retreat. Its flank was covered by British monitors and Italian floating batteries, but these in their turn were annoyed by the long-range cannonade of two old Austrian battleships, *Wien* and *Budapest*, which came out of Trieste to support the advance. They retired every evening to an anchorage near Trieste which was strongly defended by shore batteries and minefields. If they could be put out of action it would be a distinct relief to the hard-pressed Italian troops, and once more, therefore, Rizzo begged for permission to conduct a lone-hand raid. This time he obtained it.

On the evening of December 9th he set out with the motor-boats Nos. 9 and 13, and reached the approaches to the anchorage after night had fallen. With her engines just ticking over, No. 9, with Rizzo conning the vessel in the bows, crept forward foot by foot until she was brought up by some obstruction. This proved to be a number of cables which the Austrians had stretched across the entrance. Rizzo was not perturbed. He had expected something of the kind, and had come provided with the necessary tools. Working silently the Italian seamen soon cut through the cables, and as the severed ends sank to the bottom the two little boats glided through. A few minutes later Rizzo made out the dim shapes of battleships right ahead. He stopped his engines, waited until his consort had crept alongside, and then gave his final instructions in a whisper.

He then put his helm over and steered for a point on the port quarter of the leading battleship. In spite of the utmost care the throb of the engines must have been audible at a considerable distance on such a still night, but the enemy's look-outs were evidently dozing, for they made no sign. When barely 150 yards away Rizzo snapped his fingers as a signal for both torpedoes to be slipped from the launching cradles. Ten seconds later, with engines racing, the deadly "tin fish" were shooting through the water towards the unsuspecting foe. At the same instant No. 13 discharged her torpedoes at the second battleship.

Rizzo's target was the *Wien*, and so steady had been his aim that both torpedoes took her right amidships. Alarmed by the explosion other ships in harbour switched on their searchlights, and both they and the shore batteries fired wildly in the supposed direction

of the assailants. The *Wien*, with a great hole in her side, was obviously sinking, but the *Budapest* had been missed by the torpedoes from *M.A.S. 13*, though they had been fired at point-blank range.

Meanwhile Rizzo had turned his boat and was making for the gap in the boom at full speed, closely followed by No. 13. It seemed impossible that the daring intruders could escape, for they were clearly seen in the beams of the searchlights, and every gun ashore and afloat that would bear was firing at them. But the nerves of the Austrian gunners must have been badly shaken, since they failed to score a hit on either boat. Although the surrounding water was lashed into foam by the hail of shell Rizzo and his consort cleared the harbour entrance and escaped to sea without a scratch, leaving behind them the sinking battleship, which foundered with the loss of many lives.

The moral effect of this audacious raid was very pronounced. No Austrian ship ventured outside Trieste for several days afterwards, and at night the entrance was patrolled by guard-boats. At a later date another Italian motor-boat, fitted with a caterpillar device for enabling it to climb over obstructions, attempted to penetrate the Austrian defences at Pola—the most heavily fortified base on the Adriatic—but was detected and put out of action by gunfire before it could get within torpedo range.

It was in June 1918 that Rizzo performed the exploit which gained him world-wide renown. By this time the Otranto mine barrage, guarded by destroyers and drifters, had become a serious embarrassment to the German and Austrian U-boats which were operating in the Mediterranean from their bases on the Dalmatian coast. Admiral Horthy, the Austrian Commander-in-Chief, therefore decided to deliver a smashing attack

on the barrage and its guardians in order to clear the way for his submarines. For this purpose he began to assemble a powerful fleet at Cattaro, from which base the blow was to be struck.

The four Austrian Dreadnoughts, hitherto kept out of harm's way at Pola, were ordered to sail for Cattaro, the *Viribus Unitis* and *Prinz Eugen* on June 8, the *Szent Istvan* and *Tegetthoff* on the day following. Three smaller battleships, four light cruisers, eight destroyers, and twelve submarines were also to take part in the attack on the barrage.

Had this plan been carried out the consequences to the Allies must have been serious. Choosing his own time, the enemy could have struck with stunning force. In the vicinity of the barrage there was nothing capable of opposing him. It is doubtful whether any of the drifters on the barrage or the light craft covering them would have escaped destruction. Many weeks, perhaps even months, must have elapsed before the barrage could be re-established, and all this time hostile U-boats would have been passing up and down the Straits of Otranto without hindrance. It was due entirely to the heroism of one man, Luigi Rizzo, that the Allies were spared this grave setback at sea.

Rizzo had been promoted to the rank of commander for his sinking of the battleship *Wien*. On the night of June 9-10 he was patrolling the Upper Adriatic in *M.A.S. 15*, accompanied by *M.A.S. 21*. No sortie by the enemy was anticipated, for earlier in the evening Italian aeroplanes had flown over the harbour of Pola and noticed all the four Austrian Dreadnoughts at their usual moorings. But the airmen were, in fact, deceived by a simple ruse. The *Viribus Unitis* and the *Prinz Eugen* had sailed the previous night, their places at the mooring buoys having been taken by dummy

ships camouflaged to represent the absent Dreadnoughts. Thanks to this stratagem the first pair of battleships got to sea unobserved. But the second pair were to be less fortunate.

At 3.15 a.m. on June 10 Rizzo and his consort were cruising off Premuda. On board *M.A.S. 15*, in which were Commander Rizzo and five men, there had been an engine breakdown which had forced them to anchor for half-an-hour while the damage was made good. But for this delay the two boats would have been further to the southward and would probably have missed the unique opportunity that was about to be presented to them. There was brilliant moonlight, and visibility, considering the hour, was remarkably good. What followed may be told in the terse phrases of Rizzo's own report:

"At about 3.15 a.m., when I was six-and-a-half miles from Lutostrak, I sighted a cloud of smoke on the starboard quarter and well astern. Having reason to believe that I had been noticed during my patrol by sentinels on Gruiza Island, I inferred that the smoke was that of destroyers sent out from Lussin to overhaul and sink me. As dawn was already approaching, I judged it was unsafe to try to escape, as my best speed was twenty knots. Consequently, I decided to take a chance in the still uncertain light and attack.

"With this purpose in mind I turned towards the enemy and proceeded at low speed in order not to make a foaming bow wave, which would have betrayed my presence. On coming nearer I found that my first judgment was wrong. The smoke was coming from two large battleships, screened by a flotilla of eight or ten torpedo-boats. Having made up my mind to discharge my torpedoes at the shortest range

possible, I crept straight in between the first two torpedo-boats in the line on the starboard side of the battleships. In order to clear the second boat I had to increase speed from nine to twelve knots.

"I therefore unexpectedly succeeded in penetrating 100 metres inside the protecting line, and was able to fire my torpedoes at a distance of approximately 300 metres. Both struck the *Szent Istvan*, one directly amidships between the funnels, the other half-way between the after funnel and the stern. The ship did not manœuvre to avoid the torpedoes. As these detonated huge pillars of smoke and water rose out of the sea.

"The enemy torpedo-boat on my port quarter, realising what had happened, turned to cut me off, but succeeded only in crossing my wake at about 150 metres' distance. She opened fire, but the aim was too high and all the shells exploded ahead of me. Noticing that she was keeping directly in my wake I released a depth-charge, which failed to detonate. I then dropped a second one, which exploded just under the bows of the pursuing boat. She at once swung eight points to starboard, and I turned sharply to port, so that I quickly outdistanced her and soon lost sight of her."

In this bald narrative there is little to indicate the superlative courage and resolution with which the attack was conducted. Rizzo in his cockleshell had steered right into the midst of the Austrian destroyers, any one of which could have blown him out of the water, selected his target, and calmly waited until the range was so short that his torpedoes could scarcely miss. He and his companions must have believed themselves to be going to certain death, for escape seemed to be

out of the question. But their only thought was to make sure of driving the torpedoes home. That they did contrive to get away unscathed is at once a tribute to Rizzo's coolness and resource and striking proof of the confusion, not to say panic, into which the enemy had been thrown.

Although the *Szent Istvan* remained afloat for three hours after the attack, enabling most of her company to be rescued, over a hundred lives were lost when she took the last plunge. Rizzo's consort, *M.A.S. 21*, had also fired two torpedoes at the *Tegetthoff*, but they failed to run true and missed the mark. But the loss of the *Szent Istvan*, one of their finest Dreadnoughts, was quite enough for the Austrian naval command. Believing that their scheme for raiding the Otranto barrage had been betrayed, and that the torpedo attack on the Dreadnought division was part of a pre-arranged plan of counter-action, they decided to abandon the whole enterprise. Thus a most serious menace to the Allied defences in the lower Adriatic was averted.

Nor was this all. The destruction of a mighty battleship on the open sea by a diminutive Italian torpedo-boat must inevitably have caused widespread depression in Austria and contributed to the growing spirit of defeatism which was already sapping the national morale. It may, indeed, be doubted if any other single-handed action during the war had as great an effect on the ultimate issue as Rizzo's exploit off Premuda.

An unusual circumstance has helped to preserve a graphic record of this historic event. Confident in the success of his well-planned assault on the Otranto barrage, the Austrian Commander-in-Chief had installed motion-picture cameras and skilled operators

in two of the destroyers which accompanied the fleet. It was his hope that films would be taken of the actual destruction of enemy ships by the victorious fleet, and that their exhibition would not only stimulate popular enthusiasm at home but exalt the national prestige beyond the confines of Austria-Hungary itself.

He cannot have foreseen the use to which these cameras were destined to be put. What they did was to record the death throes of the stricken Dreadnought—a fateful portent for the Hungarian kingdom, the name of whose patron saint was borne by the great battleship. Each stage of the disaster is shown in the film: first, the vessel listing slightly to starboard soon after the torpedo explosions; then the decks aslant as the list increases, with the twelve big turret-guns trained out on the port beam as a counterweight; then the moment of capsizing, with the ship on her beam ends, half the deck submerged, and men sliding overboard or already fighting for life in the water. After the war this unique film was secured by the Italians, who have employed it, quite legitimately and with wonderful effect, in the cause of naval propaganda.

Heroic drama, with more than a spice of mystery, is provided by yet another Italian naval venture. For reasons which will presently appear, this episode, that involved the sinking of a second Austrian Dreadnought, is unique in the annals of the sea. And not the least intriguing feature of the affair is that it has never been fully explained. The heroes were two naval officers—Major R. Rossetti, of the Corps of Constructors, and Surgeon-Lieutenant R. Paolucci. Neither, it will be observed, belonged to the combatant branch of the service.

Major Rossetti was the inventor of a buoyant, self-propelling infernal machine, something between a

torpedo and a mine. No description of the contrivance has ever been published, and to this day it remains an Italian naval secret. But judging by the effects it must have been a most formidable weapon. Rossetti conceived the idea of turning his ingenious instrument against the Austrian battle fleet, which was too well entrenched behind the batteries and minefields of Pola to be attacked by ordinary methods. He and his friend Dr. Paolucci were exceptionally fine swimmers, and both had performed many a long-distance swim. In consultation with the poet, Sem Benelli, they worked out a plan for floating Rossetti's infernal machine into the man-of-war anchorage at Pola and blowing up the Austro-Hungarian flagship, *Viribus Unitis*.

Various circumstances delayed the execution of this dare-devil project, but on October 31, 1918, all was ready, and at 1 p.m. the expedition left Venice on board a torpedo-boat. Seven hours later they were off Brioni Island. Here the machine was lowered into the water, and the two adventurers boarded an electric launch which conveyed them silently to within a mile of the outer defences of Pola, the machine being towed astern. Rossetti and his comrade then slipped over the side and the machine was cast loose.

"That was exactly ten o'clock," wrote Paolucci in his subsequent report. "We shook hands and embraced one another in silence, let go the ropes to which we were clinging, and were soon well away from the launch, which speedily disappeared. I was holding on at the bow of the machine, while Rossetti was at the stern. We proceeded rather slowly, as the phosphorescence of the water was uncommonly brilliant. Around and above us were night and the unknown, both dark and silent. It seemed as though everything in that immensity of sombre mystery were dead save for two

opposing animate objects, the searchlights of the enemy and our beating hearts.

"As Colonel Rossetti, who was controlling the machine, quickened the speed a wave broke over me. It was colder than the water of the Venetian lagoon, in which I had been swimming every night for nearly a month past; though perhaps it only seemed colder to me because I was warm and my heart was beating very fast as a result of the injections of camphor which we had been given before entering the water. Out of the darkness began to take form the mass of Cape Compare, which we had been warned to keep on our right hand in order to pass through the outer obstructions. At 10.30 we reached these and found them to consist of a line of empty metal cylinders, from which depended heavy steel cables."

This was but the first of seven separate barriers of cables, nets, or timber baulks which guarded the inner anchorage, all of which the intrepid pair overcame with infinite labour. More than once it was necessary to man-handle the explosive machine over a solid barricade. So much time had been consumed in this work that it was 3 a.m. before they came in sight of their objective, and both now realised that unless they abandoned their purpose forthwith and turned back to the open sea they could not possibly hope to make good their escape. Nevertheless, they determined to go on.

Twice they floated past the very bows of a guard-boat, and saw the armed sentries on board, but the swimmers' heads were camouflaged as Chianti flasks, and when in view of the sentries they were careful to bob their heads in imitation of the movements of floating bottles. Evidently the ruse succeeded, for they were not challenged. They had just reached

the battleship anchorage when they suddenly perceived the machine to be sinking. "In the mingled rain and hail which now came beating down upon us I drew near to Rossetti and saw he was desperate, with water up to his mouth as he struggled to keep the machine afloat. Hastily I made sure that the immersion valve in the prow was closed, while Rossetti reached down to examine the one in the stern, which we found had in some way been opened. He shut it and opened the emersion valve, so that we at length saw the machine rising to the surface. Of all the trying moments we had spent this was undeniably the most painful."

They were able to identify the *Viribus Unitis* at the head of the line, as the great Dreadnought was brilliantly lighted up. Several attempts to float the infernal machine under the bows of the vessel and secure it there were defeated by the strong current, but eventually this was done. Almost at the same moment a searchlight beam swept the water and came to rest squarely on the two swimmers. They were discovered.

"A boat which we had seen moored alongside the *Viribus Unitis* came towards us. 'Wer da?' 'Italienische Offiziere,' I answered. They pulled us on board. A moment later I was mounting to the deck of the Dreadnought, a few yards below which there was a charge of the most powerful explosive, which would send the ship to the bottom in a very short time. It was just five minutes to six. They awoke the captain of the ship, von Voukovic, and brought us before him. Having decided to warn him, Rossetti asked for a word in private and then said:

"'Your ship is in serious and imminent danger. I urge you to abandon it and save your men.' When

the captain asked for information as to the source of the danger, Rossetti replied:

" "I cannot tell you, but I warn you that she will go down in a very short time." "

" Von Voukovic then shouted in German:

" "*Viribus Unitis*, let all who can save themselves. The Italians have put bombs in the ship! "

" We heard doors opened and shut in a hurry, we saw half-naked men running about as if demented and going up the gangways to the open deck. Then we heard the noise of bodies splashing as they threw themselves into the sea."

As Captain von Voukovic chivalrously gave the two Italians permission to save themselves, they, too, jumped overboard, but they had not swum far when a boat overtook them and they were ordered to return to the ship. Evidently the Austrians, having recovered from their panic, now believed the affair to be a hoax. For the second time, therefore, Rossetti and his companion were compelled to mount to the deck of the ship which they knew to be doomed. Threatened, and even roughly handled, by the exasperated Austrian sailors, they kept their eyes on the ship's clock, for the infernal machine was timed to explode at 6.30.

" Twenty-eight minutes past, twenty-nine—then the explosion came! A dull boom, a deep roaring, not loud or terrible but rather muffled, was followed by a column of water that shot high into the air. I felt the deck vibrate and tremble. I turned around and found I was practically alone. Every one had been seized with the single thought of saving himself. Captain von Voukovic was there, putting on a life-belt. Rossetti was near, undressing, at the same time eating a piece of chocolate which had fallen out of one

of his pockets. He turned to the commanding officer and reminded him that the laws of war permitted us to attempt to save ourselves. Von Voukovic then shook hands with both of us, and, pointing to a rope by which we might descend, indicated a passing life-boat into which we could climb."

The two officers were picked up, and from the boat they gazed upon the results of their handiwork:

"The dawn had broken, and in this colourless light the great mass of the *Viribus Unitis* settled in her grave. As we looked, the word *Unitis* was already under water, and only *Viribus* could still be seen. What irony in that *Viribus*, which was now but a sinking corpse.

"The battleship listed more and more, and as soon as her rail was under she turned completely over. The big turret-guns broke away from their moorings like toys, but it was only for an instant one saw them, for they quickly disappeared into the depths, leaving behind them nothing but the upturned keel, tinged with a greenish hue. After that the great hull slowly sank.

"Before it went entirely under I saw a man crawling along to the keel, where he stood upright. As he rose, I recognised Captain von Voukovic. A few minutes later he was killed by a beam which struck him on the head as he was swimming away from the suction of the whirlpool, from which he had just managed to extricate himself."

Such were the consequences of this astounding feat. By their own unaided efforts the two Italian officers had totally destroyed a Dreadnought of 21,400 tons, armed with twelve 12-in. guns, and manned by a crew of over a thousand. As I have said, the technical means they employed are still a mystery. In the course

of his report Dr. Paolucci mentions two machines, one of which was sunk just before the other was attached to the side of the Austrian battleship. They cannot, therefore, have been very ponderous contrivances, yet it is difficult to imagine how an explosive charge of sufficient power to destroy a great battleship so quickly could be contained in the species of small mine which appears to have been used. Obviously the explosive itself must have been far more destructive than T.N.T. or the other compounds in general use.

Whatever it was, it appears to have been buoyed up by a small, boat-shaped raft, driven by an electric motor and fitted with a device for fastening it firmly to the hull of a ship. The charge was detonated by a clockwork time fuse. When the *Viribus Unitis* was examined by divers they found below the water-line a cavity considerably larger than could have been produced by an ordinary torpedo, or even a mine. Plating, beams, and bulkheads in the vicinity of the explosion were torn and twisted by the terrific force of the blast.

The enthusiasm which this marvellous exploit aroused in Italy was somewhat damped by the discovery that just before her destruction the *Viribus Unitis* had ceased to belong to Austria-Hungary. On the previous day, in consequence of the disruption of the Habsburg Empire, the whole fleet had been handed over to the Jugo-Slavs, and was therefore no longer a menace to the Allies. Nevertheless, this circumstance, of which the Italian Government had necessarily remained in ignorance, in no way dimmed the glory of the laurels which Rossetti and Paolucci had earned by their heroism and their almost superhuman endurance. With their gallant comrade in arms, Luigi Rizzo, they had honourably and amply avenged

the underhand blows struck at the Italian Navy by the Austrian "bomb squad," for the sinking of the *Szent Istvan* and the *Viribus Unitis*, representing half the Austrian Dreadnought squadron, fully compensated for the loss of those Italian ships which had been destroyed by hidden bombs at an earlier stage of the war.

CHAPTER XVI

DRAMAS OF THE U-BOAT WAR: HOW THE *LUSITANIA* WAS AVENGED

ON the top floor of a building not a stone's throw from Whitehall there is a room in which are filed complete records of every incident that occurred at sea during the Great War. The most trivial episode has its folder of documents, for, as has happened time and again, an apparently unimportant occurrence may become invested with high significance when viewed in the light of complete knowledge. These records would furnish material for an entrancing volume of secret history, but it is extremely unlikely that such a work will ever be written, since the files are kept for official reference only.

There were, however, many mysterious incidents in the naval campaign upon which light has been shed by post-war disclosures. We now know with reasonable certainty the fate of many ships that sailed into the fog of war and never emerged again. We know—as our Intelligence Division knew at the time—nearly everything that was taking place behind the screen of secrecy which the Germans fondly believed to be impenetrable. It concealed many a grim tragedy which would have struck a discordant note amidst the pæans of victory broadcast by the German wireless. There were tales of horror that exceeded the wildest flights of Grand Guignol; fantastic plans of “frightful-

ness" that failed because of their super-ingenuity, and adventures beyond the imagination of a Munchausen.

Few writers of fiction could render plausible the story of a stolen submarine, for instance, or of a ghostly U-boat sailing the seas with its crew of dead men, yet both were actual episodes of the war. For sheer horror the circumstances in which H.M.S. *Black Prince* met her doom on the night of Jutland must be unique in the annals of the deep. There were, again, examples of poetic justice than which the literature of romance can offer none more strange. Nor was the element of humour wanting in this variegated drama of naval combat, even though it was often the sardonic humour of satisfied malice. In warfare it is but human to make a jest of the enemy's discomfiture, especially when it involves him in the mortifying process of being hoist by his own petard.

To stress the darker side of the German submarine war without mentioning some of its redeeming features would be ungenerous. As it had begun honourably enough with Weddigen's *battue* of our armoured cruisers off the Dutch coast,¹ so did it end with a forlorn hope of outstanding gallantry. The desperate attempt of *UB 116* to strike one last blow at the Grand Fleet in its lair makes a thrilling if poignant story, only hinted at in the German official record of submarine casualties:

"*UB 116* (Commander Emsmann).—Destroyed by mine, October 28, 1918, while penetrating the harbour at Scapa Flow."

¹ Shortly after Weddigen, in submarine *U 9*, had sunk the *Aboukir*, *Cressy* and *Hogue* off the Dutch coast, the *Deutsche Tageszeitung* boasted that "even the mighty *Dreadnought* herself now trembles at the name of Weddigen." A few months later Weddigen's new boat, *U 29*, was rammed and sunk with all hands by H.M.S. *Dreadnought*.

The date itself is significant, for it was that on which the great sortie of the High Seas Fleet was to have taken place. But, as we know, the Fates ruled otherwise. With its crews hopelessly disaffected, the German armada never sailed on its "death cruise," only leaving its sheltered ports to surrender to Admiral Beatty on the fateful November 21, 1918.

The month of October had been a black one for the German Navy. No longer was it possible to conceal the utter failure of the U-boat campaign, upon which high hopes had been built. In view of the forthcoming sortie all submarines still at sea had been ordered to suspend their raiding activities and return to Germany. It was intended that they should sail in advance of the High Seas Fleet and lie in ambush across the route which the Grand Fleet was expected to follow when it emerged from its bases to give battle.

But among the younger German naval officers there were impatient spirits who yearned for immediate action. Perhaps they saw more clearly than their superiors the symptoms of demoralisation among the lower-deck ratings, and hoped by a series of bold strokes to infuse new life into the decaying fleet. One of these officers was Commander Emsmann, who captained the small submarine *UB 116*. He conceived the daring plan of forcing the defences of Scapa Flow and torpedoing the Grand Fleet flagship, *Queen Elizabeth*, as it lay at anchor.

Only twice before had serious attempts been made by the U-boats to attack British battleships in their own bases. On the night of September 2, 1914, Lieut.-Commander Hersing in the *U 21* crept up the Firth of Forth as far as the great bridge before he was detected. When almost within torpedo range of several important ships he had to beat a hasty retreat, but three days later

he caught H.M.S. *Pathfinder* off St. Abb's Head and sent her to the bottom, this being the first successful submarine attack of the war.

The second attempt, made on November 23 by von Hennig in the *U 18*, ended disastrously for the would-be assailant. By following in the wake of a fleet auxiliary which was making for Scapa Flow, von Hennig got as far as the boom across the Hoxa channel. From there he was able to view the anchorage. He found it empty, for unknown to him the fleet was carrying out a sweep in the North Sea. On her way out *U 18* was discovered and twice rammed by patrol craft. Completely disabled, she was scuttled by her own people off Muckle Skerry.

Commander Emsmann in the *UB 116* hoped for better luck. Contrary to what has appeared in British histories, his raid was not a gasconading gesture undertaken on his own responsibility, but a carefully-planned enterprise which had the full approval of his superiors. Nor, as has often been stated, did the crew of *UB 116* consist of volunteer officers. The boat put to sea with her normal complement, the only supernumerary being an officer friend of the captain's.¹

Emsmann may have thought that long immunity from submarine raids would have caused the defences of the Grand Fleet's anchorage to be neglected or less carefully watched. Moreover, he probably considered that his little craft would have a better chance of slipping through than a larger boat. The *UB 116* had a surface displacement of 516 tons only, and her speed was limited to 14 knots. On the other hand, she was easy to manœuvre and could dive very rapidly, while

¹ The names of the officers and ratings of *UB 116* on her last cruise were published in the *Marine Rundschau* during 1931.

her armament of five torpedo tubes made her dangerous to the largest battleship.

Crossing the North Sea without mishap the submarine arrived off Scapa Flow on October 28, just as dusk was falling. All must have seemed to be going well as she neared the outer Hoxa defences, for there was neither sight nor sound of pursuit. Yet the *UB 116* was already doomed. While she was still some distance from the outer line of defences her presence had been detected by the listening stations on shore, which caught the hum of her motors. So perfect had our microphones become by this time that the peculiar drone of a German submarine's engine could be clearly distinguished from that of a British boat. From the moment this tell-tale sound came through the headphones of the listeners-in at Hoxa the fate of Emsmann and his men was sealed. In obedience to a curt wireless signal all steam-boat traffic inside the harbour was stopped, to avoid sound interference.

All unsuspecting the submarine glided on, but the noise of her approach was now picked up by other listening stations, and by means of cross-bearings her track could be followed as easily as if she were in full view on the surface. When within a mile of the "gate" in the barrier she was heard to blow her tanks and come to the surface, presumably to make sure of her bearings for the last time. Then she dived again and crept in towards the gap in the boom.

She was now well over the field of electrically-controlled mines which guarded the inner sanctuary. In a darkened hut not far away sat an officer, watching a dimly-illuminated chart. Moving across this, very, very slowly, was a tiny spot of light. It reached the first gate, passed through, and then turned sharply to negotiate the second gap some hundreds of yards ahead.

The officer waited no longer, but pressed a key and closed the circuit. Then he listened for the dull thud of the explosion which denoted the passing of *UB 116*.

Divers next morning found her lying on the bottom with a huge gap blown in her side. Emsmann and his men were at their posts where death had struck them like a thunderbolt. Papers were salvaged which not only revealed full details of the enterprise but gave other information of considerable value. These brave German seamen were spared the bitter knowledge that their attempted raid must in any case have proved futile, for the Grand Fleet had long since deserted Scapa Flow for the Firth of Forth. Their ignorance of this fact is a scathing commentary on the Intelligence work of the German Admiralty.

One of the ablest but least scrupulous of German submarine commanders was Walther Schwieger, the man who achieved lasting infamy as the destroyer of the *Lusitania*. This crime, committed on May 7, 1915, cost the lives of nearly twelve hundred non-combatants, among whom were many women and children. As the official historian of the naval war justly remarks: "Never had there been such a war loss on the sea; never one which so violently outraged the laws of war and dictates of humanity.

When news of this appalling deed reached the Admiralty, special pains were taken to establish the identity of the perpetrator. The German naval authorities did their best to keep the secret, and for a time our Intelligence Service pursued a false trail. For some months the sinking of the *Lusitania* was attributed to Max Valentiner, another submarine commander who had already gained notoriety by his ruthless methods. The mistake arose through confusing Schwieger's boat, the *U 20*, with the *U 38*, which

Valentiner commanded. As these two boats often relieved each other in the same area of operations it is not surprising that Valentiner was at first suspected of his comrade's crime.

But in due course the truth came to light, and from that moment our whole Intelligence system had orders to keep Schwieger under the closest possible observation. He was a marked man, a chartered bandit of the seas, to whom short shrift would have been meted out had he encountered any of our patrols. It is no longer an indiscretion to publish the fact that a very complete dossier of this officer was compiled from information supplied by agents stationed in Germany. From this it appeared that Schwieger had a Jekyll and Hyde complex.

All accounts agreed that when off duty he was very popular with his brother officers owing to his amiability, modesty, and pleasant manners. But once at sea his other self must have come uppermost, for he was absolutely merciless and seemed to take a savage delight in destroying lives and property. Three months before the *Lusitania* outrage he had distinguished himself by attempting to torpedo a hospital ship. Fortunately the attack miscarried, but the episode threw a sinister light on Schwieger's character.

Passenger liners were his favourite prey. Among other great ships of this class he sank the *Hesperian* and the *Cymric*, both without warning, and the latter but a few days after the German Government had given a solemn pledge to abstain from further barbarities of this kind. A more legitimate prize that fell to Schwieger was the auxiliary cruiser *Hilary* of the Tenth Cruiser Squadron, which he torpedoed in May 1916.

All this time he seemed to bear a charmed life, for thanks to the system of U-boat identification which had

been perfected by our Intelligence Division we always knew when he was at sea and approximately where he was to be found. Q-ships were told off to act as "live bait" for him; more than one special minefield was laid for his benefit, and every patrol craft within a hundred miles of his suspected position kept a vigilant watch for the slayer of the *Lusitania*.

He must have known that there was, as it were, a price on his head, but to do him justice he never sought refuge in one of the safe shore-going billets which other U-boat malefactors did not hesitate to accept when the hunt grew rather too warm. In the end his doom came upon him in the depths of the sea, out of sight and hearing of the avengers who had pursued him relentlessly for over two years.

Early in 1917 he had been transferred from the command of *U 20* to that of *U 88*, a newer and more powerful submarine. With his departure the luck of *U 20* which had brought her through many a tight place seemed to vanish. Thereafter she accomplished but little, and in the following October she was not only lost herself but her end involved the German fleet in a serious disaster.

Returning homeward after a cruise she ran aground on the Danish coast in a thick fog. In response to her wireless call for help the Germans despatched a powerful force to cover the salvage operations. While these were in train two of the finest battleships, *Grosser Kurfürst* and *Kronprinz*, were hit and severely damaged by torpedoes from the British submarine *J 1*, which brought off this brilliant attack in the teeth of the enemy's screening destroyers. The stricken mastodons contrived to regain port, but *U 20* could not be refloated and had to be blown up. A piquant sequel to this affair was the stinging rebuke administered to Admiral

Scheer, the hero of Jutland, by the Kaiser, who was furious at the risk to which his precious battleships had been exposed.

Beyond sinking a few merchantmen Schwieger achieved nothing spectacular with his new command. It was on September 7, 1917, that his career was brought to a violent end. He had left his base in company with another submarine, and on approaching the Horns Reef both boats dived to avoid the British minefield which had become a permanent institution in those waters. But unknown to the Germans we had only recently elaborated the trap. It had come to our knowledge that U-boats were in the habit of diving well under these mines and travelling at a great depth until the danger zone was passed. So to trump this trick explosive nets were planted below the mines proper, and so secretly was this done that the Germans long remained in ignorance of the new and more deadly ambushade.

Schwieger appears to have been its first victim. Shortly after *U 88* had dived, her consort, also running submerged, heard and felt an explosion of such violence that it was thought a mine had been hit. The captain at once blew his tanks and came to the surface, to find his own vessel uninjured. But not far away, and over the very place where Schwieger had dived, he observed a great patch of oil studded with fragments of wreckage.

There could be no uncertainty as to the fate of his comrade. Fathoms deep the *U 88* had fouled one of the newly-laid nets. As her nose bored into the meshes the twin mines linked to them were brought crashing against her hull and the double explosion must have ripped her open from end to end. At long last Schwieger had paid the price for the *Lusitania* crime—for as such it will ever be regarded by honest men,

despite the whitewash which Mr. Lowell Thomas and other apologists for the German U-boat campaign have been so lavishly applying in recent years.

Another submarine commander whom we were particularly anxious to send to his account was the redoubtable Lothar von Arnauld de la Perière. This officer, the senior "ace" of the U-boat *corps d'élite*, was of French descent, though during the war France was one of the chief sufferers at his hands. His exploits in the *U 35* would be unbelievable were they not attested by adamant facts and figures. From beginning to end he destroyed 400,000 tons of shipping, a total not achieved by any of his fellow-corsairs, though Walther Forstmann came near it with 380,000 tons and Max Valentiner was a promising third with 300,000 tons.

Unlike Schwieger of execrable memory, Arnauld de la Perière was always a clean fighter—ruthless, perhaps, but honourable according to his lights. He might aptly be termed the U-boat "gunman," for whenever possible he used his artillery in preference to torpedoes. To this taste for gun-play and above-board fighting he owed some of his narrowest escapes, for the submarine, with its vulnerable sides, must always be at a disadvantage in an artillery duel, and not infrequently the bold Arnauld caught a Tartar in the shape of a well-armed merchantman. It speaks well for his methods that although he was the most formidable of all our submarine enemies his name was never placed on the British list of "war criminals."

His hunting-ground was the Mediterranean, and it was here that he built up his almost fabulous reputation. On being appointed to *U 35* he had obtained the services of a petty officer who was considered to be the best gunlayer in the High Seas Fleet, and who had served

under von Arnault before the war. This man was a perfect wizard with a 4.1-in. gun. It is said that he muttered an incantation over every shell before it was inserted into the breech. If so the charm was certainly effective, for his shells rarely missed. At a range of thousands of yards, with the submarine wallowing in heavy seas, he could pick off the wireless cabin of a merchantman or spray the bridge with shrapnel.

Von Arnault's most successful cruise was made from Cattaro in the summer of 1916. It lasted twenty-six days and brought him a "bag" of fifty-four ships with a total of 91,000 tons. An extraordinary feature of this trip was the small expenditure of torpedoes, only four of which were fired. With two exceptions all the prizes fell to the quick-firing marksman, who fired away 900 rounds of ammunition.

It was towards the close of another Mediterranean raid that von Arnault had his most marvellous escape from death. The story has been told by a German princeling who had the honour of serving under this bonny fighter. On November 6, 1917, the *U 35* was returning to her base at Cattaro in the Adriatic, travelling on the surface at full speed. Suddenly the officer of the watch, Prince Sigismund of Prussia, noticed an upheaval in the water little more than a hundred yards away. It could only be caused by the discharge of a torpedo from a hidden submarine, and a moment later the tell-tale track of air-bubbles was seen racing towards the boat, like the pointing finger of doom.

Although the helm of *U 35* was thrust hard over in a trice, everybody knew it was too late to avoid the fatal blow. So all on deck waited for the blast that was to annihilate them. But a miracle intervened. When

the torpedo was only a few feet distant it leapt bodily out of the water, and with its twin propellers racing madly shot clean over the deck and plunged into the sea on the other side. Although in its flight through the air it damaged the gun mounting and one of the periscopes, besides smashing a steel stanchion, it failed to detonate.

Before the men on the deck of *U 35* had recovered from their astonishment at this apparition there was a warning shout from the bridge, where an officer was pointing at the sea. There were the tracks of three more torpedoes rushing towards the boat. Again it was too late to do anything—and again the *U 35* and her crew were saved by a seeming miracle. One torpedo passed underneath, almost grazing the hull; the other two, running wide, missed the target by a few feet. So near was the attacking submarine that the bows of *U 35*, turning towards the hidden foe, all but ran over his periscope.

This proximity to the target probably explains the erratic behaviour of the four torpedoes. If a torpedo is to run accurately it must travel some distance after leaving the tube before the automatic mechanism which regulates the depth and direction comes fully into operation. Very rarely, however, does a torpedo leap out of the water sufficiently high to clear the target, and it must not be forgotten that even the low-lying hull of a submarine would represent an obstacle from 6 ft. to 8 ft. high.

Be the explanation what it may, *U 35* had had a truly astounding escape. What the British submarine captain who witnessed the failure of his well-timed attack must have felt may easily be imagined. Had he known that his quarry was the dreaded *U 35*, which, under the

command of Arnauld de la Perière, had destroyed more shipping than any other U-boat, his chagrin would have been all the greater.

In the course of the war a number of German submarines were lost by accident. According to an Intelligence report filed in 1918, three mine-laying boats were blown up in extraordinary, not to say humorous, circumstances. A flotilla of these craft, it appears, was lying in harbour, where a full load of mines had been shipped and stowed away in the dropping chutes. Each mine was fitted with a soluble plug as a precaution against premature detonation. When dropped from a submarine it remained harmlessly on the bed of the sea for about fifteen minutes. At the end of that time the safety plug which held the mine fast to its anchor had dissolved, thus allowing the mine to ascend to the full stretch of its mooring cable and become "live."

On the day in question a bluejacket in one of the submarines accidentally touched a lever which opened the mine-dropping chute, and a mine promptly dropped into the sea. Appalled at what he had done the man completely lost his head. Without saying a word to anybody he furtively left the ship and made for his home in a remote part of Germany. A quarter of an hour later, the safety plug having dissolved, the mine rose from its anchor and bumped hard against the keel of the submarine. The ensuing explosion touched off all the other mines, and three boats were totally destroyed. What happened to the author of this calamity the records do not tell.

Another U-boat, belonging to the Flanders flotilla, was lost in peculiar circumstances just before entering the Dover Strait on its return from a raid in the Channel.

Compass trouble had probably developed during the voyage, and as the weather was misty the commanding officer completely lost his bearings. It was established later that he must have been many miles out of his course.

Now on this particular evening a UC minelaying boat from Zeebrugge was busily engaged in planting a new field off the English coast. Its grim task finished, it rose to the surface, and the captain had just emerged from the conning-tower when he saw a strange vessel bearing down on him a few hundred yards away. He was about to sound the klaxon for a crash dive when, straining his eyes through the gloom, he made out the characteristic silhouette of a big German U-boat. Astonished to meet a friend in this area, which had been notified to all U-boat commanders as one to be given a wide berth, he promptly flashed a warning message with his electric torch.

Evidently, however, the other submarine misunderstood the situation and took the UC boat for a British patrol challenging by flashlight, for it promptly altered course and made off at full speed, heading straight for the minefield which the other German boat had recently laid. Horrified at what seemed about to happen, the UC captain frantically signalled the fugitive again, but failed to get any response. Then the big U-boat was seen to be diving, and a few seconds later there was a blinding flash and a deafening explosion, twice repeated. The submarine must have dived right into the mines which its consort had laid to trap British ships.

The explosions had been observed by our patrols, and though the facts of the case were not known at the time, the presence of a new minefield was at once suspected

and noted on the charts. A day or two later it had been swept up, its timely discovery and removal having doubtless prevented severe casualties to shipping.

A ghastly fate befell the crew of *U 59*, another large German boat. In May 1918 this submarine was leaving Heligoland for an ocean cruise when it struck a mine and sank, the minesweeper that was escorting it being blown up at the same time. Although the submarine lay disabled at the bottom of the sea, the majority of her crew had survived the explosion, for they could be heard tapping on the walls of their iron tomb by divers who located the wreck on the following day. Strenuous efforts were made to raise the boat, but she had foundered in the middle of a minefield newly sown by British craft and this made salvage operations extremely dangerous; in fact, two minesweepers were lost while engaged in the work.

The last attempt, made nearly three days after the *U 59* had sunk, had to be abandoned, but not before the divers had again heard tapping from inside the boat. It was clear that some at least of the entombed men were still alive, though how they had contrived to exist for so long remains a mystery. With heavy hearts their comrades had to leave them to their lingering death.

A few months later this tragedy was repeated when a newly-built submarine cruiser foundered during her trials outside Kiel. Signs of life in the interior persisted for two days, and fruitless attempts were made to pump oxygen into the boat. When eventually she was raised and opened up, the scene inside turned those who saw it sick with horror. A particularly gruesome feature was the discovery of two bodies wedged in the forward

torpedo tubes. These unfortunates, unable to make their way through the tubes which might have led them to safety, had been overcome by weakness or by poisonous fumes from the batteries, and had died where they lay.

CHAPTER XVII

AFTER THE WAR: "DEBUNKING" THE WASHINGTON CONFERENCE

LESS than three years after "the war to end war" the victorious Powers found it expedient to arrange a conference for the purpose of checking the competition in naval armaments which had developed among themselves. Tempting as it may be to dwell upon the supreme irony of this circumstance, the antecedents of the Washington Conference of 1921-22 are much too involved to be dealt with here at any great length. Suffice it to say that the Great War did not put an end to the factors which promote naval rivalry; it merely changed the rivals.

Most of the combatant Powers had professed devotion to the freedom of the seas, but they had very different ideas as to how it was to be achieved. Germany sought to further the cause by the wholesale destruction of shipping, irrespective of flag. The United States held, or affected to hold, the principle of free navigation in war no less than in peace, subject only to the three-mile limit and a very restricted list of contraband goods. Great Britain remained true to her traditional policy of defending the integrity of the trade routes upon which her very existence depends, while reserving the right to attack the sea communications of her enemies. Many will regard that policy as being more straightforward, as it is certainly more workable, than the

somewhat nebulous doctrines to which other Powers have paid lip-service.

The case against these doctrines has been put very clearly and forcibly by an Italian authority, who writes:

"The truth is that the freedom of the seas in time of war is a myth; and that any agreements made in time of peace would serve only to increase hatred in time of war, and to stir up, at the instance of a clever belligerent Power, world public opinion against an adversary on the pretext that the latter has violated existing agreements. If the freedom of the seas is, in truth, desired, it is necessary that men should free themselves of the spirit of war: there is no other means and can be none."¹

Nevertheless, the freedom of the seas was made the pretext for a huge expansion of naval armaments immediately after the war. The ink on the Armistice was scarcely dry when the United States began work on a programme of sixteen super-Dreadnoughts, to say nothing of smaller craft. Japan was already committed to a building scheme of equal scope. Thus, a few months after the conclusion of peace these two Powers were openly contending for the mastery of the Pacific.

Much against her will Great Britain was drawn into the competition. Unable to remain passive while her own fleet was threatened with obsolescence by the feverish building of America and Japan, she was forced to resume the construction of great battleships at fabulous cost. Then, inevitably, the impulse spread to France and Italy, and by November 1921 the naval armaments competition had regained all its pre-war vigour, the only difference being that it was now well-nigh universal.

During this period, therefore, there was plenty of room for Intelligence work. Once more a veil of

¹ *The Politics of Naval Disarmament*, by Giovanni Engely, 1932.

secrecy hid the dockyards from prying eyes, and the naval censorship was re-established in fact if not in name. Both America and Japan had confidential naval plans which they sought to keep from the other's knowledge. American agents were active in the Far East; Japanese emissaries were at work in California and Hawaii. The Intelligence department of each navy had a busy time, and that their labours were not unfruitful was proved by the mass of information they had collected before the Washington Conference. Subsequently the Americans made many of their reports public, for political reasons. On the whole they seem to have had the best of the Intelligence competition, for among other material they had acquired full details of all the Japanese men-of-war designed up to the eve of the Conference. If the Japanese were equally successful in uncovering American naval secrets they preferred not to advertise the fact.

Although Japan was the principal, and indeed the avowed, object of American naval preparations at this period, Great Britain was also put on the "potential enemies" list by the big-navy people in Washington. Admiral Plunkett was not the only American naval officer who spoke of war with Britain as a definite possibility of the future. Very naturally, therefore, the American Intelligence Service was interested in the British Navy, and evinced some curiosity as to the features of our first post-Jutland battleships.

Down to the end of the war American technical experts were given the run of our dockyards. They were permitted to view H.M.S. *Hood*, the world's largest warship, while she was under construction, one result of this inspection being the complete revision of the plans for the first group of American battle cruisers. It is but fair to add that British experts were

granted equal facilities to visit the ships and naval establishments of the United States. Until the Armistice there was, in fact, a free exchange of information between the Admiralty and the U.S. Navy Department, who virtually pooled their technical skill and experience. With the return of peace this arrangement necessarily lapsed, and thereafter each navy kept its secrets more or less to itself.

In July 1921 the United States issued its invitation to the principal Powers to discuss the possibility of a reciprocal limitation of armaments, proposing for this purpose a conference to be held at Washington in the following November. The American gambit had been well-timed, for in the summer of 1921 the world was menaced with a naval building race of unprecedented magnitude. Compared with the gigantic programmes then in train, the Anglo-German competition of 1907-14 was a mere bagatelle. No less than thirty-six ships of the super-Dreadnought type were being built or about to be laid down by the three leading Powers, the tonnage of this armada exceeding that of the combined battle fleets which had fought at Jutland.

Sixteen mastodons were actually on the stocks in the United States; Japan had started work on eight and authorised eight more, and the British Parliament had voted four ships as the first instalment of what was intended to be a far-reaching programme of replacement. Each of the thirty-six vessels was to be larger and more powerful than any fighting craft which had been in existence at the end of the war, and the average cost was estimated at £7,000,000. Together, therefore, the three Powers were about to spend £252,000,000 on capital ships alone.

It is notorious that by this time the politicians who

had instigated the big American programme just after the war were appalled at the monstrous size of the snowball they had set rolling, and were only too eager to arrest its mad career. They had never expected that Japan would accept the challenge by proceeding to build keel for keel. They chided Great Britain for joining in the race, though it was hardly to be supposed that we would rest content with an antiquated fleet while squadrons of super-Dreadnoughts were being built for other navies. It is therefore charitable to assume that those American writers who claim that their country's motive in summoning the Washington Conference was purely altruistic have not taken the trouble to ascertain the facts.

The reasons which prompted the American Government are fairly well known. There was violent domestic criticism of the naval programme on both economic and political grounds; the Press expatiated on the exorbitant cost of the new battleships and demanded to know why they were necessary, and thoughtful Americans, observing the grave reactions in Japan, warned the Government that unless the naval race in the Pacific were promptly checked it must inevitably lead to war. By 1921, therefore, opposition to the programme had become so marked that its completion was no longer feasible. This was subsequently admitted by Mr. Hughes, the Secretary of State, who in a speech delivered after the Washington Conference said in effect that, "Naval Treaty or no Naval Treaty, we could not have built all the battleships contained in the programme."

Such were the principal motives which induced President Harding's Cabinet to summon the Washington Conference. There were, however, other considerations which did not come out at the time. When

America, after the war, laid the keels of her ten battle-ships and six battle cruisers, she did so in full confidence of their superiority over all other fighting ships then afloat. Nor was this confidence unfounded. With the solitary exception of the *Hood*, no British capital ship exceeded 30,000 tons. On the other hand, four of the new American units were of 32,600 tons and the remaining twelve were of 43,200 to 43,500 tons. Again, while the heaviest British ship's armament was eight 15-in. guns, the American vessels were to carry from eight to twelve 16-in. guns.

Japan, it is true, was building two ships of 33,800 tons and it was known that her new designs were of still heavier tonnage, but American experts were satisfied that their vessels would still be unrivalled in size and gun-power. When the sixteen new ships were in commission the United States Navy would enjoy supremacy in Dreadnought tonnage and armament; it had a large group of fast light cruisers on the stocks, and the colossal war-time programme of destroyer and submarine construction would give it an abundance of these ancillary craft. All this and much more was jubilantly predicted by the big-navy interests. They acclaimed the golden age of American sea-power.

But an unpleasant shock was in store for them. In the early months of 1921 the American naval Intelligence Bureau was able to communicate particulars of the latest British and Japanese designs. The disclosure completely upset the optimistic forecasts of the big-navy people. They had to digest the unpalatable fact that their new Dreadnought fleet, so far from being predominant in fighting power, would be reduced to secondary rank even before it was ready for commissioning.

Taking battle cruisers first, the six American ships

were of 43,500 tons displacement, with a speed of $33\frac{1}{4}$ knots, and mounted eight 16-in. guns. Japan's reply was to lay down four ships of almost precisely the same tonnage, speed, and armament, followed by a further quartet of 46,000 tons, and 35 knots speed, mounting eight 18-in. guns. Thus, to the six American battle cruisers—which had been hailed as the mightiest in the world—Japan would oppose eight ships of equal or greater tonnage and much heavier armament.

That was bad enough, but, from the American point of view, worse was to follow. Particulars of the four British battle cruisers authorised in March 1921 showed them to eclipse even the Japanese monsters, which already overshadowed the American ships. The new British type was to displace over 48,000 tons, its speed would be nearly 34 knots, and no less than nine 16-in. guns were provided. So far, therefore, Washington's bid for primacy in battle cruiser strength had resulted in the creation of twelve British and Japanese ships, the majority of which were larger and more formidable than the six American units.

Equally disturbing was the Intelligence Bureau's report on foreign battleship construction. Next to its new battle cruisers, the American Navy took pride in its battle squadron of six Indianas—ships of 43,200 tons, and 23 knots speed, with massive armour protection and a battery of twelve 16-in guns. But now it was found that the newest Japanese battleships were 2,000 tons heavier, and were to carry either twelve 16-in. or eight 18-in. guns; further, that the British programme for 1922 embraced four battleships of 50,000 tons, to be armed with nine 18-in. guns.

Moreover, while all the sixteen American ships, being actually under construction, could not be re-designed on the basis of increased fighting power, both Britain

and Japan were planning additional vessels which would accentuate still further the inferiority of their American "opposite numbers." In short, the United States, after spending a prodigious amount of money, found itself saddled with a second-class fleet, while each of the Powers whom it regarded as its rivals was building whole squadrons of super-ships which out-classed the finest American types.

At this point the fair-minded reader may be moved to ask why, if the United States was really determined to make a bid for naval supremacy, it did not set about the building of a further group of ships superior in tonnage and armament to the new British and Japanese designs. This course was, in fact, urged by a group of American naval "die-hards" at the time. But it could not be done. The American capital ships then under construction had been planned with an eye to the dimensions of the locks in the Panama Canal. Their breadth just allowed them to pass through the locks with ease and safety, but the addition of a few feet would have made this impossible.

Now in order to trump the British and Japanese monsters which were to carry 18-in. guns, the United States would have had to build ships of increased breadth, and those ships could not have passed through the Panama Canal. To reach the Pacific from the Atlantic, or vice-versa, they would have had to double Cape Horn. The American Navy would thus have been deprived of the Panama short-cut which it rightly regards as its greatest strategical asset. There is no doubt whatever that the dimensions of the Panama locks were a weighty factor in deciding American policy on the question of naval limitation.

These revelations were a bitter blow to American

hopes, and it is not surprising that the big-navy party endeavoured to conceal its discomfiture by setting up a smoke screen of abuse directed against Great Britain and Japan. But in the meantime the Intelligence Bureau was submitting new information which, we can well believe, only fortified the Washington Cabinet in its resolve to check the naval race before it was too late. Reports from Tokyo left no room for doubt as to the attitude of Japan. Rightly or wrongly, a conviction prevailed there that the United States was seeking to gain a foothold on the Asiatic continent with the object of suppressing Japan, either by force of arms or by "dollar diplomacy," and converting the Chinese market into an American preserve.

Colour was lent to this belief by the activity of American financiers in Manchuria. Responsible Japanese publicists charged the United States with pursuing exactly the same policy that Russia had made her own twenty years before. Japan at that time had not hesitated to draw the sword in defence of her interests, though in so doing she risked her existence; and she now intimated plainly that further American encroachment upon her sphere of influence would, if necessary, be resisted by force.

Japanese feeling ran high when a report was circulated that American financiers were secretly negotiating with the Chinese Government for the lease of territory in Fukhien province, where an American fleet base was to be established. This story was probably apocryphal. At the same time, however, the declared intention of the United States to develop Cavite, in the Philippines, and the island of Guam as great naval bases—which would enable the American Navy to concentrate its full strength in the Far East—was regarded as a direct

menace by the Japanese, whose principal aim for a generation past had been the exclusion of foreign naval power from the Western Pacific.

In 1919-20 the U.S. Congress voted funds for preliminary work at Cavite and Guam. That apparently trivial act was of crucial importance in its bearing on American-Japanese relations. After the tremendous sacrifices she had made in 1904-5 to oust the Russians, Japan did not propose to remain quiescent while another Power established the counterparts to Port Arthur and Vladivostok and brought a great fleet to within a few days' steaming of her coast-line. Thus it happened that during the winter of 1920-21 Washington was repeatedly advised through diplomatic and secret service channels that Japan was preparing to treat the fortification of Cavite and Guam as a *casus belli*.

As one who was in close touch with Far Eastern affairs at that time, I have never doubted the accuracy of these communications. In my judgment Japan was preparing for war, and would certainly have declared it at her selected moment had American policy in the Far East remained unchanged. Japan, it is true, did not wish for war; she was not ready for it in the naval sense, and her financial situation left much to be desired. Nevertheless, she was determined at all costs to prevent the establishment of American naval bases on her side of the Pacific. And her inflexible resolve on this point formed the burden of reports from the best-informed American diplomats and Intelligence agents in Eastern Asia.

Now the American Government did not want a war on its hands. It attached considerable value to the maintenance of the "open door" in China, but barring a deliberate attempt by Japan to exclude American trade from the Chinese market it was by no

means prepared to embark on a great war just to satisfy the vanity of the big-navy interests. Two courses lay open: either to complete the battleship programme and develop the Pacific naval bases according to plan, or to endeavour by offering concessions to Japan and Great Britain to terminate a naval rivalry which had already proved costly and futile, and was now becoming positively dangerous. Unless all the portents were deceptive the first alternative would lead to war. It was therefore decided to renounce the grandiose naval ambitions which had been embraced in the flush of nationalism that succeeded the victorious peace, but at the same time to use the half-built fleet of super-Dreadnoughts as a lever to secure an adequate measure of naval power in the future by agreement with Britain and Japan.

In this manner, therefore, the United States entered the Washington Conference. When the negotiations began the American delegates possessed a double advantage over their confrères. In the first place, they had more than half a million tons of unfinished warships as bargaining pawns. Vessels actually on the stocks naturally weighed more heavily in the scales than ships that existed only on paper, especially as the other Powers did not know that the United States had already decided to scrap most of these naval "white elephants."

In the second place, all the secret code messages exchanged between the Foreign Office in Tokyo and its delegates at the Conference were at once deciphered by the American cryptographers; consequently, the American Government knew exactly what concessions Japan was prepared to make, and was thus able to discount the apparent firmness with which her demands were presented.

For example, when America proposed a battleship

ratio of 60 per cent. for Japan, the latter demanded 70 per cent. as her "irreducible minimum," and when America declined to entertain this claim it looked as though a deadlock had been reached. Had Japan remained adamant she would almost certainly have secured her 70 per cent., for the American Government could not afford to let the Conference fail; but when the intercepted and deciphered messages from Tokyo showed Japan to be wavering, and, eventually, instructing her delegates to accept the 60 per cent. ratio if no better terms were possible, the American Government could safely refuse to budge an inch from its original proposal. In effect, therefore, Japan was neatly hoodwinked at the Washington Conference, and the indiscreet revelation of this fact, belated though it be, must have caused bitter resentment in Tokyo.

The piquant story of the intercepted despatches is related by no less an authority than Mr. H. O. Yardley, the former chief of the United States secret decoding bureau—which, unlike its counterpart at the British Admiralty, continued to function well into the post-war period. During the Washington Conference, he tells us, "some five thousand deciphered Japanese messages which contained the secret instructions of the Japanese delegates" were handed to the State Department in Washington. And he shrewdly adds: "With this information in its hands the American Government . . . could not lose. All it need do was to mark time. Stud poker is not a very difficult game after you see your opponent's hole card."¹

While the apparent deadlock on the ratio problem was in its most obstinate phase, Japan suddenly indicated a way out. Her delegates hinted that she might be prepared to reconsider the 60 per cent. offer

¹ *The American Black Chamber*, by Herbert O. Yardley, 1931.

if America would agree to abandon the fortification of her bases in the Philippines and at Guam. The American Government affected to be surprised by this proposal, and at first received it coldly; but, in fact, they had known it would be forthcoming weeks beforehand, and had already decided to accept it.

For this advance information they had to thank their secret cryptographers, who had deciphered the following cable from Tokyo to Admiral Kato, the Japanese plenipotentiary:

“SECRET.—Referring to your conference cablegram No. 74, we are of your opinion, that it is necessary to avoid any clash with Great Britain and America, particularly America, in regard to the armament limitation question. You will to the utmost maintain a middle attitude and redouble your efforts to carry out our policy. In case of inevitable necessity you will work to carry out your second proposal of 10 to 6·5 (*i.e.* ratio of naval strength). If, in spite of your utmost efforts, it becomes necessary in view of the situation and in the interests of general policy to fall back on your proposal No. 3, you will endeavour to limit the power of concentration and manœuvre of (fleets in the) Pacific by a guarantee to reduce or at least to maintain the *status quo* of Pacific defences, and to make an adequate reservation which will make clear that (this is) our intention in agreeing to a 10 to 6 ratio.”

Apart from the evidence it provides of the skill and, one may add, the ruthlessness with which the American Secret Service operated during the Washington Conference, this cablegram is of great historic interest as the genesis of the agreement (Article 19 of the Washing-

ton Five-Power Treaty) by which the Western Pacific was practically demilitarised. When America and Japan abandoned the great naval bases they had intended to create in that area they relinquished the only means of bringing their main battle fleets into action against one another, since without adequate bases overseas a modern fleet is tied to its own coast. Hence, the compact to maintain the *status quo* in regard to Pacific bases was probably the most noteworthy peace-making achievement of the Washington Conference.

It would be interesting to know whether the activities of the Washington "Black Chamber" during the Conference were confined to Japanese despatches, or whether they extended to the confidential messages exchanged between the Foreign Office in London and the British delegation. Mr. Yardley is silent on this point, but since he affirms that his bureau had penetrated every cipher used by foreign Governments, his readers are led to infer that the contents of every confidential cablegram addressed to a foreign delegation or embassy in Washington were at once communicated to the State Department.

Secret Service activities, of a kind, were much in evidence before and during the Geneva Naval Conference of 1927. This gathering was convened by President Coolidge with the object of extending the ratio system to cruisers and smaller craft. Such vessels were outside the scope of the Washington Treaty, and it was feared that unless some bounds were set to their multiplication a building race might develop which would have all the evil results of a Dreadnought competition.

At this date the big-navy partisans in America were conducting a widespread propaganda for the further-

ance of their views. They professed to have discovered that Great Britain and Japan, but particularly the former, were evading the Washington Treaty by various subterranean methods, and that guileless America was being robbed of the fruits of the "sacrifice" she had made in discarding her immense battleship programme. What that sacrifice amounted to we have already seen. In return for a substantial consideration the United States had abolished a mass of redundant naval tonnage.

Since the fact was openly admitted at a later date, there can be no impropriety in mentioning the presence at Geneva of agents who were employed by American armament firms to do everything possible to wreck the conference. In this they were successful. American public opinion was misled by mendacious stories of British bad faith. Reports alleged to be based upon official Intelligence data were circulated to the effect that British battleships and cruisers had secret equipment which made them much more formidable than was suspected. For instance, the battleships *Nelson* and *Rodney* were each fitted to carry fifty aeroplanes, and were therefore disguised aircraft-carriers—in contravention of the Washington pact!

Many British liners recently completed or then under construction had been specially designed as armed cruisers, the American journalists at Geneva were told. Consequently Great Britain's potential cruiser strength was unlimited, and in order to balance matters America must build twice as many 8-in. gun-cruisers. A few of the American correspondents were deceived by these and similar falsehoods, but the majority saw through the mischief-making propaganda and courageously denounced its authors. The sequel came when a Congressional inquiry was held at Washington into the publicity methods practised at Geneva, in the course

of which Mr. William Shearer cynically avowed his activities as a paid agent of certain armament firms.

Apart from this sordid intrigue a large amount of genuine Intelligence work was performed in connection with the Geneva Conference. British representatives were astonished at the voluminous information about their own navy which was laid before them by the American delegates. There were details of our new cruisers, including those not yet laid down, of which even the Admiralty was ignorant, and which surprised none so much as those who had designed the ships. But the Americans had a profound faith in their Intelligence Bureau, and when it was pointed out to them that the Bureau's data on British warships were in flat contradiction to those furnished by the British Admiralty they politely but firmly adhered to their own figures.

One American officer exhibited a portfolio of some three hundred closely-typed foolscap pages, which dealt, he said, with a single group of Japanese cruisers. This monumental dossier was but one example of the thoroughness with which the American naval Intelligence service does its work. That it has excellent sources of information is undeniable. In 1931 the Japanese naval authorities were disagreeably surprised to find that Washington knew all about their latest destroyers, which had been built with unusual secrecy, and that even the calibre of their guns, hitherto camouflaged as 4.7 in., was correctly listed as 5.1 in. in the American Intelligence tables.

In conclusion, a dramatic episode at the London Naval Conference in 1930 may be recorded. During a discussion on submarines a French official list was circulated, giving the tonnage, armament, etc., of the latest French boats. According to this document the big submarine *Surcouf* was armed with 5.5-in. guns.

But an Italian delegate quietly pointed out that the list was inaccurate, the true armament of the *Surcouf* being two 8-in. guns. This was the first disclosure of the fact that France had built a veritable undersea cruiser with the heaviest guns ever mounted in a submarine, and the Italians frankly acknowledged that the discovery had been made by one of their Secret Service agents.

APPENDIX

"DEBUNKING" THE WASHINGTON CONFERENCE

THE article reproduced below was published in the December 1927 issue of a well-known American monthly. In granting me permission to reprint it here the management of the magazine in question courteously point out that the article is at variance with their own views and was published under peculiar circumstances. They emphasise that Mr. Bernard Walker's opinions were entirely his own and in no way the responsibility of the periodical in which they appeared. They have, therefore, requested me to suppress the name of the magazine.

While readily complying with this request, I do not think it improper to make clear that the article is less a statement of personal views than an exposition of figures and facts which cannot be refuted. Its effect is to explode the myth that the United States made the greatest sacrifice in the cause of naval disarmament when it scrapped the bulk of its post-war Dreadnought programme.

As Mr. Walker's figures demonstrate, Great Britain discarded more than twice as much Dreadnought tonnage as the United States—473,570 tons, as against only 195,443. Further, she consigned to the scrap-heap vast numbers of cruisers, destroyers, and submarines long before their period of useful service had expired.

Read in conjunction with my final chapter, this

article should be helpful in presenting the Washington Conference in its true light. It is very important that the facts should be made clear, since the idea that America, by voluntarily renouncing the sceptre of the seas in 1921, has acquired a moral right to determine not only her own standard of naval strength but that of the British Empire as well, is widely held in the United States, and, indeed, appears to be entertained by not a few British publicists.

Such a delusion can only lead to deplorable misunderstanding, and the article that follows is a useful and timely corrective:—

THE POST-WAR NAVIES

By J. BERNARD WALKER

Since the close of the World War, and particularly following the Washington Treaty, so much insidious and disturbing naval propaganda has been spread abroad that there is a crying need for a plain statement of the facts regarding the naval situation, covering the period from the Armistice and the Treaty up to the present day.

At the outbreak of the war it was realised that the keystone of the whole system of Allied attack and defence, present and prospective, was the British Navy. If the British Empire, widely scattered, was to develop its full strength on the continental battle-fields, if America was ever to land its armies in France, the powerful German fleet must be shut up within its home waters, and the high seas must be swept clear of enemy raiding forces. This was a gigantic task, and it was accomplished only by building up the already powerful British fleet until its preponderance of strength was overwhelming. Every shipyard, public and private,

was working at full pressure during the four and one-half years of the war.

It is not generally known that from 1914 to the Armistice a mighty fleet of new fighting ships was added to the British Navy. In his notable work, *Navies and Nations*, Hector C. Bywater writes:

“At the date of the Armistice the White Ensign was flown by 1,354 combatant vessels, with an aggregate of 3,250,000 tons, forty-two of these being capital ships of the Dreadnought type.”

Also there were 24 pre-Dreadnoughts, 109 cruisers, 13 aircraft-carriers, 527 destroyers and torpedo-boats, and 137 submarines. This gigantic force completely overshadowed the combined fleets of the United States, France, Italy, and Japan.

When the surrendered German fleet committed *hara-kiri* at Scapa Flow, the last vestige of a potential enemy disappeared, and Great Britain voluntarily set about the work of reducing her fleet to a peace-time basis. The work of demolition went forward so rapidly that early in 1923, before the French had signed the Washington Treaty, she had struck off her navy list and scrapped, dismantled, or sold for scrapping, a total of 657 ships of a total displacement of over 1,500,000 tons. Into this enormous scrap-heap went the 18 modern, war-tested Dreadnoughts, destroyed in accordance with the Washington Treaty of 1922. All this was done before the United States had scrapped a single ship, the United States and Japan awaiting the signature of the French nation, which they had a perfect right to do.

This fleet of 657 destroyed ships included 38 Dreadnoughts and pre-Dreadnoughts; four battle cruisers; 33 cruisers, armoured and unarmoured; 55 light, high-speed scout cruisers; 10 flotilla leaders of over

30 knots speed; 277 destroyers, 95 torpedo-boats, 20 monitors, 116 submarines, and four extemporised aircraft-carriers.

This wholesale voluntary scrapping (by Great Britain) of all her pre-Dreadnoughts and 18 of the Dreadnoughts that fought in the first line at Jutland was done in advance of the required date, as a member of the Government said in Parliament at the time—"that this country should give a lead in good faith, and to show that it is our intention to carry out, in the spirit and in the letter, this great Treaty for the limitation of armaments."

The famous Washington Treaty of 1922 aimed at the reduction of the swollen war-time fleets to a peace-time basis. It (the Washington Conference) was called by the United States Government, speaking through its President. This was done because the United States recognised that the enemy's ships had been sunk, and that the only remaining fleets were those of the nations that had been in active and close alliance during the late war. It is true that there was an outbreak of the sporadic antagonism between the United States and Japan, which was preventing those countries from following the lead of Great Britain in stopping all big ship construction and reducing the size of their war-time navies. Both the United States and Japan were building capital ships at a rate which boded ill for the future, and the nervous tension was being strained to the breaking point by a widespread and very active propaganda that threatened to have disastrous results.

The Washington Conference was a brilliant success, at least so far as capital-ship strength was concerned. The five leading nations, United States, Great Britain, Japan, France and Italy, agreed to reduce their capital-ship strength to a ratio of 5—5—3—1·8—1·8

respectively. Great Britain agreed to give up her traditional naval supremacy and accept parity with the United States, acting under the conviction that war between the two countries was unthinkable. She agreed to reduce her fleet still further by scrapping 22 capital ships that had fought at Jutland, and the two pre-Dreadnoughts, *Commonwealth* and *Agamemnon*, which were all that remained of the pre-Dreadnought fleet that she had already scrapped. Also she abandoned the construction of the four super-Hoods of 48,500 tons, upon which she had done a total of 5,520 tons of construction.

The United States agreed to break up the completed Dreadnoughts *Delaware* and *North Dakota*, also *Washington*, the last-named being 75·9 per cent. completed at the time. Also, they agreed to break up 12 super-Dreadnought battleships and battle cruisers of over 43,000 tons displacement, which were upon the building ways in various stages of construction, the most advanced being the *South Dakota*, 38·5 per cent. completed, the least advanced being the *Ranger*, upon which a total of 4 per cent. had been done. The *Washington*, 75·9 per cent. complete, was also destroyed.

The total amount of constructed Dreadnought tonnage thus destroyed by the United States covered 15 ships and totalled 195,443 tons, as shown in Table I. With the exception of the four super-Hood ships, all of the 22 British Dreadnoughts were completed ships that had fought in the war. The total additional amount Great Britain thus destroyed amounted to 473,570 tons, as shown in Tables II and III.

TABLE I

United States Dreadnoughts Destroyed

	Tons Displacement.	Per cent. Completed.	Tons Destroyed.
South Dakota	43,200	38.5	16,632
Indiana	43,200	34.7	14,991
Montana	43,200	27.6	11,923
North Carolina . . .	43,200	36.7	15,855
Iowa	43,200	31.8	13,737
Massachusetts . . .	43,200	11.0	4,752
Lexington ¹	43,500	33.8	14,703
Constitution	43,500	22.7	9,875
Saratoga ¹	43,500	35.4	15,390
Ranger	43,500	4.0	1,740
Constellation. . . .	43,500	13.4	5,829
United States	43,500	12.1	5,264
Delaware	20,000	100	20,000
North Dakota	20,000	100	20,000
Washington	32,600	75.9	24,752

Total destroyed . . . 195,443

¹ Completed as aircraft-carriers.

TABLE II

British Dreadnoughts Destroyed

	Tons Displacement.
Dreadnought	17,900
Bellerophon	18,600
St. Vincent	19,250
Inflexible	18,750
Superb	18,600
Neptune	19,900
Hercules	20,000
Indomitable	18,750
Temeraire	18,600
New Zealand	18,800
Lion	26,350
Princess Royal	26,350
Conqueror	22,500
Monarch	22,500
Orion	22,500
Australia	19,200
Agincourt	25,000
Erin	23,000
Thunderer	22,500
King George V	23,000
Ajax	23,000
Centurion	23,000
Super-Hoods, four ¹	5,520
Total destroyed	473,570

¹ Four Super-Hoods begun.

TABLE III

Tons Destroyed

	Dreadnought.	Pre-Dreadnought.
United States	195,443	302,749
Great Britain	473,570	344,800

The outbreak of the war found the United States in the third position in naval strength. At that time the (U.S.) Navy and its friends were urging that to them rightly belonged the position of second in strength. That was the mark set and accepted. As the result of the war and the Treaty, the United States has moved up to the first position, ranking with Great Britain. This was accepted as a gratifying result by the American people, by the Press of the country, and by the great majority of the personnel of the Navy. The United States were raised from third to front rank.

Unfortunately there existed and it is feared still exists, though in less degree, a small but vociferous section of the U.S. Navy that is bitterly opposed to the Treaty. It includes a few American older officers, mainly retired, who do not appear to realise that the war of the Revolution is over. To them must be added a few of the younger officers of strong racial and religious prejudices. These constitute a small but loudly vocal body of propagandists, who have bitterly assailed the Treaty, claiming that the United States Navy's interests were sacrificed to Great Britain, who "put one over on us," and contrived to prevent the United States from becoming the leading navy in the world.

How in the world a nation that sacrificed one and one-third million tons of fighting ships *voluntarily*, and then followed that up by destroying nearly 500,000 tons of completed Dreadnoughts, can be accused of "putting one over" on a nation that has broken up only 498,192 tons of Dreadnought and pre-Dreadnought construction is puzzling to the common-sense mind of the average layman.

This endeavour to persuade the good people of the United States that they were the only country that

made any real sacrifice is so wide of the mark as to be positively funny. No less an authority than Secretary Wilbur, of the Navy, has stated before the Senate Naval Committee that at the Washington Conference the United States gained everything that they wanted

The following tables have been specially prepared for this book by Mr. Maurice Prendergast, a former editor of Jane's *Fighting Ships*, the well-known naval annual.

They show in detail the composition, tonnage, and armament of the British, United States, and Japanese battle fleets as they would have existed and developed but for the Washington Naval Treaty of 1922.

These tables should be studied in connection with Chapter XVII, entitled "After the War: 'Debunking' the Washington Conference." They also serve to elucidate the diagram, "Post-Jutland Battle Fleets."

I.—BRITISH NAVY

SHIPS. ¹			DISPLACEMENTS ² (Tons).		MAIN ARMAMENT.		WEIGHT OF FIRE. ³ Whole Class (lb.).
No.	Class (or Ship).	Type.	Each Ship.	Class Total.	Each Ship.	Class Total.	
4	— (not named)	B.S.	50,000?	200,000?	9-18"	36-18"	118,520
4	— (not named)	B.S.	48,500?	194,000?	9-18"	36-18"	118,520
4	"Modified Hood"	B.C.	48,000	192,000	9-16"	36-16"	88,596
1	Hood	B.C.	41,200	41,200	8-15"	8-15"	15,360

A.—POST-JUTLAND TYPES⁴

4	— (not named)	B.S.	50,000"	200,000"	9-18"	36-18"	118,520
4	— (not named)	B.S.	48,500"	194,000"	9-18"	36-18"	118,520
4	"Modified Hood"	B.C.	48,000	192,000	9-16"	36-16"	89,596
1	Hood	B.C.	41,200	41,200	8-15"	8-15"	15,360
13	Capital Ships, totalling		627,200 tons,		armed with 116 heavy guns: viz.		
					<div> <div>72-18"</div> <div>36-16"</div> <div>8-15"</div> </div>	<div> <div>fir-</div> <div>ing</div> </div>	<div> <div>340,996 lbs. or</div> <div>152½ tons of</div> <div>metal.</div> </div>

B.—PRE-JUTLAND TYPES

5	"Royal Sovereign"	B.S.	25,750	127,750	8-15"	40-15"	76,800
5	"Queen Elizabeth"	B.S.	27,500	137,500	8-15"	40-15"	76,800
1	Erin	B.S.	23,000	23,000	10-13.5"	10-13.5"	12,500
1	Agincourt	B.S.	27,500	27,500	14-12"	14-12"	11,900
4	"Iron Duke"	B.S.	25,000	100,000	10-13.5"	40-13.5"	56,000
3	"King George V"	B.S.	23,000	69,000	10-13.5"	30-13.5"	37,500
2	"Orion"	B.S.	22,500	90,000	10-13.5"	40-13.5"	50,000
2	"Colossus"	B.S.	20,000	40,000	10-12"	20-12"	17,000
1	Neptune	B.S.	19,900	19,900	10-12"	10-12"	8,500
2	"St. Vincent"	B.S.	19,250	38,500	10-12"	20-12"	17,000
3	"Bellerophon"	B.S.	18,600	55,800	10-12"	30-12"	25,500
1	Dreadnought	B.S.	17,900	17,900	10-12"	10-12"	8,500
2	"Renown"	B.C.	26,500	53,000	6-15"	12-15"	23,040
1	Tiger	B.C.	28,500	28,500	8-13.5"	8-13.5"	11,200
2	"Lion"	B.C.	26,350	52,700	8-13.5"	16-13.5"	20,000
2	"New Zealand"	B.C.	18,800	37,600	8-12"	16-12"	13,600
2	"Indomitable"	B.C.	17,250	34,500	8-12"	16-12"	13,600

41	Capital Ships, totalling	953,150 tons,	$\left\{ \begin{array}{l} 92-15'' \\ 144-13.5'' \\ 136-12'' \end{array} \right\}$	fir- ing	$\left\{ \begin{array}{l} 479,440 \text{ lbs. or} \\ 214\frac{1}{2} \text{ tons of} \\ \text{metal.} \end{array} \right.$
		armed with 372 heavy guns: viz.			

NOTES

¹ The following Capital Ships of the Pre-Jutland Period are not included:

(a) Canada (B.S.) transferred to the Chilean Navy, 1919.

(b) Audacious (B.S.), Queen Mary (B.C.), Indefatigable (B.C.) and Invincible (B.C.), which were all lost in the Great War.

² The displacements are "normal" or "Navy List" and are according to national rules in use before the introduction of the "Washington standard" system for estimating the displacements of combatant surface war vessels.

³ For each gun of the calibres listed, the weight of projectile is as follows: 3,320 lbs. (18"); 2,461 lbs. (16"); 1,920 lbs. (15"); 1,400 lbs. (13.5") in the "Iron Duke" class and Tiger; 1,250 lbs. (13.5") in the "King George V," "Orion," and "Lion" classes and in Erin; 850 lbs. (12").

⁴ For types, B.S. = Battleship; B.C. = Battle Cruiser.

II.—UNITED STATES NAVY

SHIPS.			DISPLACEMENTS ¹ (Tons).		MAIN ARMAMENT.		WEIGHT OF FIRE.* Whole Class (lbs.).
No.	Class.	Type.	Each Ship.	Class Total.	Each Ship.	Class Total.	
A.—POST-JUTLAND TYPES *							
6	"Indiana"	B.S.	43,200	259,200	12—16"	72—16"	151,200
4	"Maryland"	B.S.	32,600	130,400	8—16"	32—16"	67,200
6	"Constellation"	B.C.	43,500	261,000	8—16"	48—16"	100,800
16	Capital Ships, totalling .		.	650,600 tons,	armed with { 152—16" guns }		firing { 319,200 lbs. or 142½ tons of metal.

B.—PRE-JUTLAND TYPES							
2	"California"	B.S.	32,300	64,600	12—14"	24—14"	33,600
3	"New Mexico"	B.S.	32,000	96,000	12—14"	36—14"	50,400
2	"Pennsylvania"	B.S.	31,400	62,800	12—14"	24—14"	33,600
2	"Nevada"	B.S.	27,500	55,000	10—14"	20—14"	28,000
2	"New York"	B.S.	27,000	54,000	10—14"	20—14"	28,000
2	"Wyoming"	B.S.	26,000	52,000	12—12"	24—12"	20,880
2	"Florida"	B.S.	21,820	43,640	10—12"	20—12"	17,400
2	"Delaware"	B.S.	20,000	40,000	10—12"	20—12"	17,400
2	"Michigan"	B.S.	16,000	32,000	8—12"	16—12"	13,920
<hr/>							
19	Capital Ships, totalling		500,400 tons,	armed with 204 heavy guns: viz. { 124—14" 80—12" }		firing { 243,200 lbs. or 108½ tons of metal.	

NOTES

¹ Normal Displacements, as listed by the Official Handbook, "Ships' Data, U.S. Naval Vessels, July 1, 1921."

² For each gun of the calibres listed, the weight of projectile is as follows: 2,100 lbs. (16"); 1,400 lbs. (14"); 870 lbs. (12").

³ For types, B.S. = Battleship; B.C. = Battle Cruiser.

III.—IMPERIAL JAPANESE NAVY

SHIPS.			DISPLACEMENTS ²		MAIN ARMAMENT.		WEIGHT OF FIRE. ³ Whole Class (lb.).
			Each Ship.	Class Total.	Each Ship.	Class Total.	
No.	Class.	Type.					

A.—POST-JUTLAND TYPES⁴

2	— (not named)	B.S.	48,000?	96,000?	8—18"	32—18"	106,240?
2	"Owari"	B.S.	45,000	90,000	12—16"	24—16"	52,680
2	"Kaga"	B.S.	39,900	79,800	10—16"	20—16"	43,960
2	"Nagato"	B.S.	33,800	67,600	8—16"	16—16"	35,120
4	— (not named)	B.C.	46,000?	184,000?	8—18"	32—18"	106,240
4	"Amagi"	B.C.	43,000	172,000	8—18"	32—16"	70,240

16 Capital Ships, totalling . . . 689,400 tons,
armed with 140 heavy guns: viz. $\left\{ \begin{array}{l} 48-18" \\ 92-16" \end{array} \right\}$ firing $\left\{ \begin{array}{l} 361,300 \text{ lbs. or} \\ 161\frac{1}{2} \text{ tons of} \\ \text{metal.} \end{array} \right.$

B.—PRE-JUTLAND TYPES

2	"Ise"	B.S.	31,200	62,400	12—14"	24—14"	33,600
2	"Fuso"	B.S.	30,600	61,200	12—14"	24—14"	33,600
1	Settsu	B.S.	21,420	21,420	12—12"	12—12"	10,200
2	"Haruna"	B.C.	27,613	55,226	8—14"	32—14"	44,800
2	"Kongo"	B.C.	27,500	55,000			

9 Capital Ships, totalling . . . 255,280 tons,
armed with 92 heavy guns: viz. $\left\{ \begin{array}{l} 80-14" \\ 12-12" \end{array} \right\}$ firing $\left\{ \begin{array}{l} 122,200 \text{ lbs. or} \\ 54\frac{1}{2} \text{ tons of} \\ \text{metal.} \end{array} \right.$

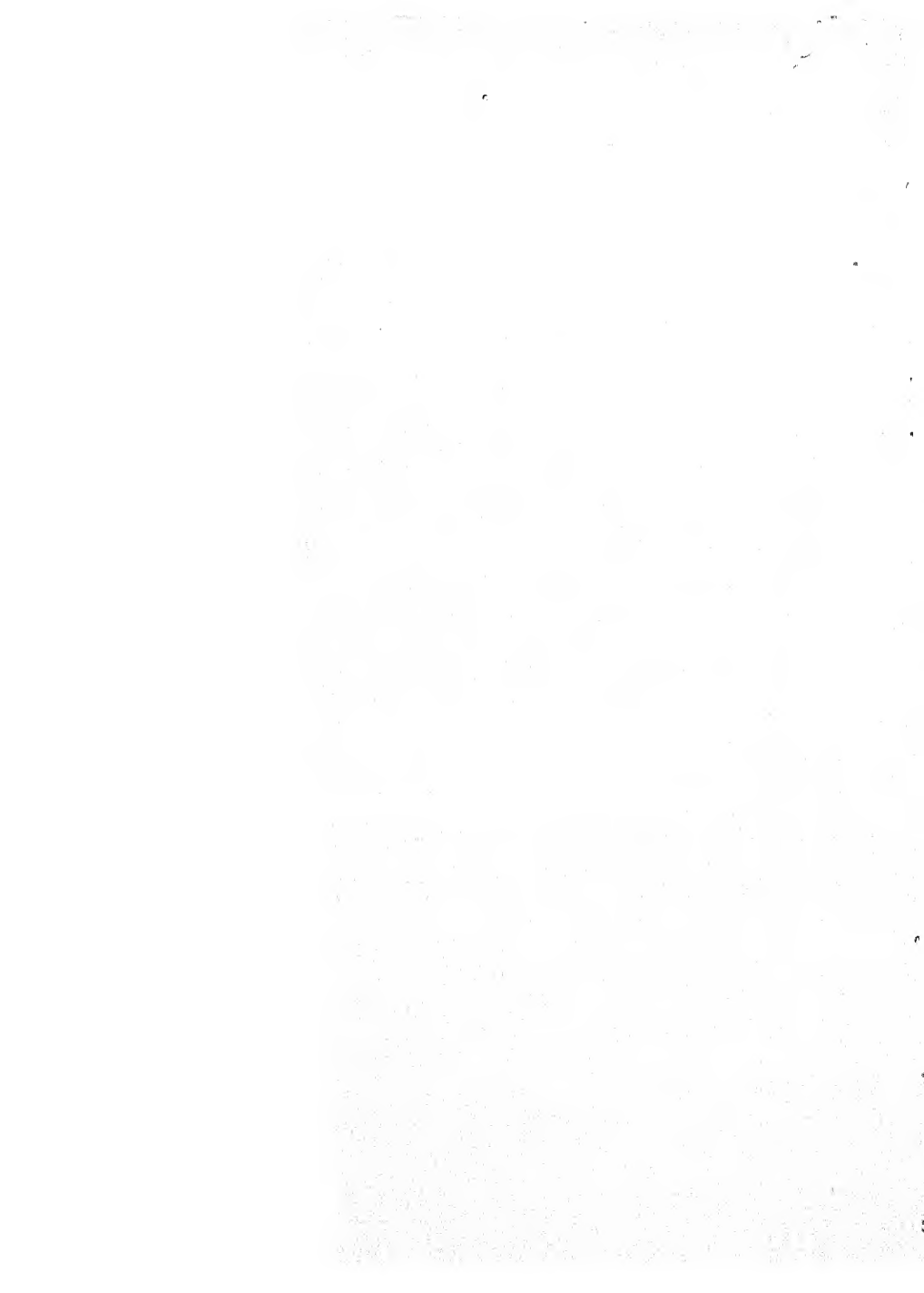
NOTES

¹ The Kawachi (B.S., Pre-Jutland Period), lost by explosion in 1918, is not included.

² These are the "legend," "normal" or "Navy List" displacements, as given in Lists issued before the adoption of the "Washington standard" system for estimating the displacements of combatant surface war vessels.

³ As no mark of 18" gun was introduced into the Imperial Japanese Navy, the weight of projectile for such a gun is a matter of conjecture. It is assumed that, had such a gun been introduced, the weight of its projectile would have been the same as that for the British mark of 18" gun, i.e. 3,320 lbs. *Fighting Ships* Naval Annual, 1931 edition, makes no statement as to the weight of shell fired by the Japanese 16" gun. In the above table, the weight of the 16" projectile has been taken as 2,195 lbs., but it may actually be more. For the 14" gun, the weight of projectile has been taken as 1,400 lbs. and for the 12" gun as 850 lbs.

⁴ For types, B.S. = Battleship; B.C. = Battle Cruiser.



INDEX

- Aboukir*, H.M.S., 258
 Adair, Rear-Admiral T. R. S., 129
 Admiralty, the British, 2, 44, 82,
 83, 107, 111, 117, 149, 157,
 159, 176, 189, 213, 214, 215,
 216, 262, 288
 Intelligence Division of the
 British Admiralty, the, 39, 43,
 44, 46, 92, 108, 110, 112, 210,
 212, 214, 216, 224, 225, 226,
 227, 228, 229, 230, 231, 232,
 233, 234, 235, 236, 237, 238,
 239, 240, 256, 257, 262, 263,
 264
 Admiralty Narrative, the, Battle
 of Jutland, 57, 60, 64
 Admiralty Salvage Section, the, 39
 Adriatic, the, 18, 220, 241, 242,
 245, 248, 267; coast-line, 72
 Ægean, the, British squadron in,
 219, 220, 222
Agamemnon, H.M.S., 122, 125, 220
Agents provocateurs, German, 102,
 114
 Airship raids on Great Britain, 96,
 97
 Ajaccio, 20
 Alexandrovno, 115
 Alhorn Zeppelin aerodrome, 87,
 88, 89, 90, 91, 96, 100, 237
 Allied Intelligence Service, 30
 Allied Secret Service, 87, 91, 147
 Allington village, 80
 Alsace, 138, 139, 140, 141, 145,
 150
 Alsace-Lorraine, 137, 139
 Altona, 185
 Anna [Katrina Iselmann], wait-
 ress at Libau, in Russian
 secret service, 3, 4, 5, 6, 7, 8,
 9, 15, 16, 17
Antrim, the, cruiser, 82
Aquidaban, the, Brazilian ironclad,
 explosion in, 69
 Arbuthnot, Rear-Admiral Sir
 Robert, 53, 54, 55, 56, 57
Ardent, H.M.S., at Jutland, 60
Arethusa, H.M.S., 174
 Atlantic, the, 280
Auf See Unbestegt, German publica-
 tion, story of Stoker Zenne of
 the *Wiesbaden*, 66, 67
 Augsburg, 229
 Austrian Fleet, the, 220
 Austrian Intelligence Service, 71,
 74, 75
 Austrian Naval Command, 70
 Austrian spies, 74
 Austro-Hungarian Navy, the, 70
 Baltic, the, 1, 2, 3, 94, 238
 campaign, the, 1
Barham, H.M.S., 161
 Barming village, 80
 Bavaria, 137
 Beardmore and Co., Wm., Park-
 head Steel Works, Glasgow,
 129, 130
 Beatty, Admiral, 54, 55, 209, 212,
 214, 215, 259
 Behncke, Admiral, 160
 Belgian coast, the, 85
 Belloni, Signor Angelo, Italian
 naval reserve, 18, 19, 20, 21
Benedetto Brin, the, Italian battle-
 ship, 72
 Benelli, Sem, Italian poet, 250
 Berlin, 93, 95, 115, 122, 123, 125,
 132, 133, 134, 144
 Bismarck, 176
 Black, Captain Eric P. C., of
 H.M.S. *Natal*, 80
Black Prince, the, armoured cruiser,
 at Jutland, destruction of, 53,
 54, 55, 56, 57, 58, 59, 60, 61,
 62, 63, 64, 258
 Blank, cobbler at Dettweiler, 140,
 141, 142, 143, 144

- Blohm and Voss shipyard, the, 199
Blücher, the, German cruiser, 99
 Bonham, Captain T. P., of the *Black Prince*, 53, 54
 Borkum affair, the, 105, 106
 Brandon, Lieut., R.N., 105
 Brandon-Trench affair, the, 105
 Bremen, 107, 109, 230
 Bremermann, Kurt, warrant officer in German Baltic squadron, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Breslau, the, 53, 210, 219, 220, 221, 222
 Brindisi, 72
 Brioni Island, 250
 British destroyer flotillas, at Jutland, 58, 59, 60, 61
 British Intelligence Service, 92, 93, 108, 109, 110, 122, 148, 149, 188, 210, 212, 214, 216, 224, 225-240
 British Prize Court, the, 36
 British Secret Service, the funds of, 112
 British Security Service, the, 121, 122, 128, 134
 Brixton prison, 134
 Brodie, Lieut.-Commander T. S., of *E 15*, 42, 43
 Bruges, 24, 25, 28, 30, 31, 32, 33, 34, 146, 147, 151, 152
 German naval mess at, 31, 32, 33, 34
 Brunsbüttel, 238
Budapest, the, Austrian battleship, 242, 244
Bulwark, the, British battleship, 77, 78, 79
 Court of Inquiry on loss of, 79
 Buschmann, Fernando, espionage, 134, 136
 Cadbury, Major E., 97
 California, 275
 Cannstatt, near Stuttgart, 201, 202
Canterbury, the, cruiser, at Jutland, 54
 Caporetto, reverse of, 242
 Cape Clear, 29
 Cape Compare, 251
 Cape Horn, 280
 Cape Kephala, 221
 Carl, British secret agent, 234, 235, 236, 237
 Carroll, Lieut. B. G., assistant coaling officer at Sheerness, 78
 Cattaro, 245, 267
 Cavite, the Philippines, 281, 282, 283, 285
 Cerno, Wilhelm von, Lieut. of Hungarian artillery, 113
 Chanak, Turkish batteries, 222
Chester, the, cruiser, at Jutland, 54, 55
 China, the U.S.A. and the open door in, 282
 Chinese Government and Fukhien Province, the, 281
 Clyde, the, 125
 Cobbe, Captain Mervyn H., of the *Princess Irene*, 79
 Cocos Islands, the, 35
Colossus, H.M.S., 156
 Constantinople, 222
 German staff at, 219
 Coolidge, President Calvin, 286
 Coronel, battle of, 1, 35
 Corsica, 19
Cressy, H.M.S., 258
 Cromarty Firth, 81, 82, 130, 132
 Cromarty, village of, 81
 Cromer, 97
 Cuban rebels, 69
 Cuxhaven, 113, 177
Cymric, the S.S., 263
 Dachel Oasis, the, on the upper Nile, 95
 Dahm, Lieut., of the German artillery, espionage, 115, 116
 Dalmatian coast, the, 244
 Danish coast, the, 264
 Danzig, 116, 233
 Dardanelles, the, 36, 42, 210, 219, 222
 Darling, Mr. Justice, 128
Defence, H.M.S., at Jutland, 52, 53, 55, 56, 57, 58, 64
 de la Ferrière, Lothar von Arnauld, German submarine commander, 266, 267, 268, 269
 Denmark, 175
Derfflinger, the, battle cruiser, at Jutland, 160, 161
 Dettweiler, near Zabern, 140, 141, 144, 145

- Deutsche Tageszeitung*, the, German periodical, 117, 259
 Devonport, 125
 Dick, Captain James D., of H.M.S. *Vanguard*, 82
 Dietrichsdorf, ammunition depôt near Kiel, 234, 235, 236, 237
Die Weltbühne, radical review, 204
Die Zukunft, German periodical, 116
 Dogger Bank, the, 217
 action, the, 99, 209
 Dover, 126, 214
 barrage, the, 30, 210
 harbour, 85
 Dover Straits, the, graveyard for U-boats, 27, 269
Dreadnought, H.M.S., 123, 258
 Dubail, General, French Chief of Staff, 106
Duke of Edinburgh, H.M.S., at Jutland, 53, 55, 56, 57
 Dunkirk, 147
 Durbar, Indian Coronation, 81
 Dusseldorf, 114, 115
- E-boats, British submarines. *See* Submarines.
 East Africa, 95, 176
 East coast, the, of England, 89
 Eberhard, torpedo gunner of *UB 65*, 27, 28
 Eckermann, Frau, espionage agent, 107, 108, 111
 Eckernförde, near Kiel, 117
 Ehlers, German bluejacket, espionage, 114
 Ehrhardt gun factory, the, at Düsseldorf, 114
 Eilers, Hans, American, espionage, 114
 Elbe, the, 175, 180
Elbing, the, German cruiser at Jutland, 55
Emden, the, German raider, 35
 Emsmann, Commander, of the *UB 116*, 258, 259, 260, 261, 262
Engadine, the, aircraft-carrier, 56
Ersatz Odin, the, German battleship, later the *Prinzregent Luitpold*, 111
 Essen, 113
 Ewald, German subject, espionage, 114
- Ewing, Sir Alfred, Director of Naval Education, 206, 207, 208
- Falmouth*, H.M.S., at Jutland, 54
 Falklands, the, battle of, 1, 35
 Falkenhayn, General von, 141
 F.I.A.T. San Giorgio shipyard, Spezia, 19, 20
 Fiedler, Luigi, and sabotage behind Italian lines, 70, 71, 72, 73, 74, 75, 76
 Fifth Battle Squadron, the, Grand Fleet, 56
 Finland, 197
Firedrake, the, destroyer, 43
 First Cruiser Squadron, the, Grand Fleet, 53
 Firth of Forth, 132, 259, 262
 Fisher, Lord, 123
 Fitzgerald, Lieut., of *E 15*, 43
 Flanders U-boat flotilla, 30
 Forstmann, Walter, German submarine commander, 266
 Forstner, Lieut. von, Prussian officer, 138, 139, 140, 141, 142, 143, 144, 145, 150
Fortune, the, destroyer, at Jutland, 60
 Frankfort-on-Main, 231
Frankfurt, the, German cruiser, at Jutland, 55
 "Franz" Ludwig, pseud., espionage, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153
 French General Staff, the, 206
 French Intelligence Service, the, 136, 146, 147
Friedrich der Grosse, the, at Jutland, 62, 209, 239
 Friedrichshafen, 105
 Fryatt, Captain, 30
 Fuhkien Province, the, China, 281
Furious, the, aircraft-carrier, 92
- Galatea*, the, at Jutland, 54
 Gallipoli, 220
 Geneva Naval Conference, the, 286, 287, 288, 289
 German Admiralty, the, 109, 123, 134, 224
 airship policy, 100, 101
 Baltic Squadron, the, 3

- German civilian prisoners in
 Southend Roads, 78
 destroyers, at Jutland, 63
 High Seas Fleet, the, 3, 31, 48,
 49, 50, 51, 52, 59, 60, 63, 89,
 98, 100, 103, 112, 148, 155,
 156, 159, 172, 174, 188, 189,
 192, 212, 213, 214, 215, 216,
 217, 218, 225, 230, 239, 259,
 266
 Imperial Headquarters, 30
 Naval Command, the, 2
 Naval staff work in Baltic, 1
 Navy, the, reverses in the
 Baltic, 1
 Navy's airship policy, 93, 94
 95, 96, 97, 98, 99, 100
 Press, the, and spy stories, 103,
 104, 107, 108, 116, 117, 119,
 120
 Secret Service, 113, 119, 120,
 121, 123, 128, 132, 133, 210,
 215
 spies in France, 104, 132; Great
 Britain, 104, 132, 133, 134,
 135, 136; Russia, 104, 132
Glutton, the, monitor, 77, 84, 85
 Glatz, fortress of, 105, 106, 107
Goeben, the, 53, 210, 219, 220, 221,
 222, 223
 Gothenburg, 238, 239
 Grand Fleet, the, British, 2, 40,
 48, 51, 52, 53, 54, 58, 59, 62,
 63, 64, 65, 81, 82, 99, 155,
 161, 174, 182, 211, 212, 217,
 258, 259, 260, 262
 Graves, Arngaard Karl, German
 agent, 128, 129, 130, 131, 132
Grosser Kurfürst, the, German battle-
 ship, 189, 264
 Gruiza Island, 246
 Guam, the island of, 281, 282,
 283, 285
 Gunnery, battle of Jutland, com-
 parison between British and
 German, 155-162
- H-boats, British submarines. *See*
 Submarines.
 Haage, in East Friesland, Zeppel-
 in sheds, 88, 93
 Hall, Admiral Sir Reginald, 39
 Hamburg, 17, 108, 185, 186, 196,
 227, 230, 231, 232, 233, 238
- Hamburg-Amerika Line, the, 110
 Hamlet, 29
 Hangelø, Holland, 193
 Hanover, 178
 Harden, Maximilian, 116
 Harding, President Warren G.,
 277
 Harwich, 122
 Hase, Georg von, Commander,
 gunnery officer of the cruiser
Derfflinger, 160
 Havana harbour, cruiser *Maine* in,
 69
 Hawaii, 275
 Hecht, Professor Dr., 21, 24, 25,
 29
 Heinecke, Captain, 210
 Heligoland, 23, 38, 173, 174, 175,
 176, 177, 178, 179, 180, 181,
 182, 183, 184, 185, 186, 187,
 188, 189, 190, 271
 Bight, the, 100, 148, 173, 184,
 213, 214, 215, 216, 217
 the fortifications of, 114, 173,
 174, 180, 181, 182, 188
 Hennig, von, of the *U 18*, 260
 Henry of Prussia, Prince, the
 Kaiser's brother, Commander-
 in-Chief in the Baltic, 1
 Hersing, Lieut.-Commander, of
 the *U 21*, 259, 260
Hesperian, the, 55, 263
Hilary, the, auxiliary cruiser, 263
 Hipsich, Bremen engineer, espion-
 age agent, 107, 108, 109, 110,
 111
 Hitler, Herr, 198, 199
Hogue, H.M.S., 258
 Holland, 193
Hood, H.M.S., 275, 278
 Hood, Rear-Admiral, the Hon.
 H. L. A., 54, 55, 64
 Horns Reef, the, 59, 265
 Horthy, Admiral, 244, 248
 Hughes, C. E., U.S. Secretary of
 State, 277
- Iéna*, the, French battleship,
 explosion in, 69
 Imbros, 220
Indefatigable, H.M.S., at Jutland,
 52
Indomitable, H.M.S., at Jutland,
 54

- Inflexible*, H.M.S., at Jutland, 54
 Ingolstadt, 229, 231
 Invergordon, 53
Invincible, H.M.S., at Jutland, 52, 54
 Iselmann, Katrina. *See* "Anna."
 Italian declaration of war on Austria-Hungary, 70
 Italian Navy, the, 72, 73
 J-boats, British submarines. *See* Submarines.
 Jagow, Herr von, Police President of Berlin, 143, 144
 Jamboli, Bulgaria, 88, 95
 Japan, loss of ships by explosions, 84
 naval policy of, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 301
 Jellicoe, Admiral Lord, 81, 160, 174, 188, 209
 Jellicoe, Lady, 81
 Jutland, battle of, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 99, 155, 156, 157, 158, 159, 160, 161, 162, 164, 209, 212, 233, 234, 239, 258, 276
 Admiralty narrative, 57, 60, 64, 65
 comparison between British and German gunnery at, 155, 156, 157, 158, 159, 160, 161, 162
 German Official History, 58, 60, 61, 62, 65, 66, 67, 157, 159, 160
 Jutland, coast of, 51
 Kaiser, the, 101, 177, 239, 265
Karlsruhe, the, German cruiser, blown up, 84
 Kato, Admiral, 285
 Kayserling, ex-artillery-man, Allied informer, 200, 201, 202, 203, 204
 Kephalo, 221
 Keyes, Vice-Admiral Roger, 85, 214
 Kiel, 4, 14, 16, 112, 114, 117, 118, 136, 147, 149, 232, 234, 237, 240, 271
 Kiel Canal, the, 2, 116, 118
 Kling, Olga, 114
König, the, at Jutland, 157, 160, 161
 Königsberg, East Prussia, 87
 Kostevitsch, Captain, of the Russian Guards, 115, 116
 Kraschutski, Commander H., 208, 209
Kreuz Zeitung, the, German periodical, 144
Kronprinz, the, German battleship, 189, 264
 Krupps, Essen, 113, 193
 Krupp-Germania shipyard, the, 196
 Küpferle, Anton, espionage, 134, 136
 L 2, American submarine, 29
 Latvia, 197
 Lefèvre, M. André, 198
 Leipzig, 105, 107, 113, 114, 115, 204
 Leith, 130
Leonardo da Vinci, the, Italian Dreadnought, 73, 74
 Lettow-Vorbeck, General, 95
 Libau, 3, 5, 6, 7, 15
Liberté, the, French battleship, explosion in, 69, 70
Lion, the, battle-cruiser, at Jutland, 52, 161
 Lissa, battle of, 174
 Liverpool, 82
Lloyd's List, 194
 Lohmann, coxswain, of *UB* 65, 28
Lokal-Anzeiger, the, and escape of Captain Lux, 107
 London Naval Conference, the, 1930, 288, 289
Lusitania, the, 262, 263, 264, 265
 Lussin, 246
 Lutostrak, 246
Lützow, the, at Jutland, 160, 161
 Lux, Captain, escape from Glatz 105, 106, 107
 M 28, British monitor, 221
 Maack, von, Bremen merchant, espionage agent, 107, 108, 110, 111
 Macdonald, W. R., 118
 Mackay, Dr. James, of Leith, 130

X*

SECRET PURPOSES



- McLennan, Professor J. C., scientific adviser to the Admiralty, 45
Magdeburg, the cruiser, wreck of, 1, 2, 35, 36
 Maidstone, 80
Maine, the, American cruiser, 69
Malaya, H.M.S., 161
 Malta, 96
 Manchuria, 281
Marlborough, H.M.S., at Jutland, 65
 M.A.S. boats, 241, 242, 243, 244, 245, 246, 247, 248, 249
 Maschinenfabrik Augsburg-Nürnberg, the, South German engineering works, 110
Medina, the, liner, 81
 Mediterranean, the, 46, 170, 210, 219, 266, 267
 Mediterranean Fleet, the British, 53
 Medway, the, 80
 Messimy, Monsieur, French Minister of War, 106
 Methil, 218
 Metz, 140
 Meyer, Richard, seaman on board *UB 65*, 27
Mikasa, the, Japanese battleship, explosion in, 69
 Milan, 229
Moltke, the, battle-cruiser, 216, 217, 218
 Moray Firth, 130
Mutsushima, the, Japanese cruiser, explosion in, 69
 Muckle Skerry, 260
 Mudros, 221
 Munich, 226, 227, 228, 229
 Naples, 96
 Napoleonic wars, the, 175
Nassau, the, at Jutland, 61, 62
Natal, the, armoured cruiser, 77, 80, 81, 82
 Court of Inquiry on loss of, 81
Naval and Military Record, the, 127, 194
Naval Operations, official history, 57, 65, 210, 212
Nelson, H.M.S., 171, 287
 Netherlands Navy, the, 43
 Neumünster, naval wireless, 207, 208, 212, 224
 Newton village, 80
 Nikolski, Russian officer, 115
 Noens, Lewis V., of Brussels, espionage, 130
 Norddeutsche Maschinen- und Armaturenfabrik, the, 110
 Nordholz Zeppelin sheds, near Cuxhaven, 88, 93
 Nore, the, 79
 North German Lloyd Line, the, 110
 North Sea, the, 1, 50, 51, 93, 94, 96, 97, 100, 170, 174, 179, 180, 210, 212, 215, 218, 260, 261
 Norway, 67, 213, 216
Novoe Vremya, the, Russian periodical, 119, 120
 Nuremberg, 231
 Odensholm, town on the Baltic, 1
 Odessa, 115
 Old Bailey, the, Gunner Parrott's trial, 127
Oldenburg, the, German battleship, 217
 Oldenburg, town, 90, 237, 238
Onslow, H.M.S., at Jutland, 64
Ophelia, the, German hospital ship, 36
 Osel, island of, 5
 Ostend, 44, 47, 87, 125, 128, 214
Ostfriesland, the, at Jutland, 63
 Otranto Mine Barrage, the, 244, 248
 Otranto, the Straits of, 96, 245
 Pacific, the, 280
 Panama Canal, the, 280
 Paolucci, Surgeon-Lieut., 249, 250, 251, 252, 253, 254, 255, 256
 Paris, 107
 Parrott, Gunner, espionage, 124, 125, 126, 127, 128
Pathfinder, H.M.S., 260
 Persano and the battle of Lissa, 174, 175
 Petersburg, 5, 6
 Petersen, German bluejacket on *UB 65*, 22, 23
Pillau, the, German cruiser, at Jutland, 55
 Pless, German G.H.Q., 14
 Plunkett, Admiral, 275
 Pola arsenal, the, 71, 76, 77, 244, 245, 250

- Poland, 197
Politics of Naval Disarmament, the,
 by Giovanni Engely, 274
Porpoise, the, destroyer, at Jut-
 land, 60
 Port Arthur, 282
 Portland Bill, 23
 Port Stanley, Falkland Islands, 35
 Port Victoria, 79
Posen, the, German battleship,
 148
Posen, fortress of, 113
 railway station, 113
Prémuda, 246, 248
Price, Lieut., of *E 15*, 43
Princess Irene, the, auxiliary mine-
 layer, 77, 79, 80
Princess Margaret, the, auxiliary
 minelayer, 80
Princess Royal, H.M.S., at Jutland,
 52, 161
Prinz Adalbert, the, armoured
 cruiser, 2
Prinz Eugen, the, Austrian battle-
 ship, 245
Prinzregent Luitpold, the, German
 battleship, 111
Prölss, Captain, 97
 Prussia, 137, 144, 150, 176, 226
Punch's War Cartoons, 45

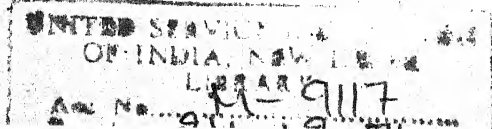
Queen Elizabeth, H.M.S., 259
Queen Mary, the, battle-cruiser, at
 Jutland, 52

Raglan, the, monitor, 221
Rebeur-Paschwitz, Admiral von,
 German Commander-in-Chief
 Turkish Fleet, 220, 221, 222
 Red Sea, the, 53
 Regensburg, 229
 Reich, ex-police commissioner,
 113, 114
 Reichstag, the, 103, 116, 139, 141
 Reuter, Colonel von, at Zabern,
 139, 142, 143
 Richard, British secret agent, 235,
 236, 237
 Riga, 5, 10, 16
 the Gulf of, 3, 4, 9, 10, 11, 16
 Rithole Reach, Sheerness, 77
 Rizzo, Captain, raid on Pola, etc.,
 76, 77, 242, 243, 244, 245, 246,
 247, 248, 255

 Roberts, Dr. Norcliffe, 118
 Robinson, Gregory, 118
Rodney, H.M.S., 287
 Rossa Island, 20
 Rossetti, Major R., of the Italian
 Corps of Constructors, 249,
 250, 251, 252, 253, 254, 255
 Rosyth, 54, 129, 212, 217
 Rotterdam, 130
 Royal Air Force, the, 40
 Russia, 281
 loss of a ship by explosion, 84
 Russian Admiralty, the, 14
 cruisers, two, engage the *Magde-*
 burg, 1, 2
 Embassy, Berlin, 115
 espionage service, Naval, 3
 Fleet, the, 3
 Government, the, 113
 Intelligence Headquarters, 116,
 119
 Naval Command, the, 3
 Secret Service, 15, 120
 War Office, 115
 Rüstringen, 234

 St. Abb's Head, 260
 Salisbury, the Marquess of, 177,
 178
 Saxony, 137
 Scapa Flow, 54, 83, 98, 130, 132,
 212, 258, 259, 260, 261, 262
 Schadt, Lieut., at Zabern, 139
 Scheer, Admiral, 58, 59, 62, 89,
 91, 99, 100, 112, 160, 189,
 211, 212, 213, 214, 215, 216,
 217, 218, 239, 265
 Schelle, Lieut.-Commander, of
 UB 65, 25
 Schiermonnikoog, Dutch island, 43
 Schiller, Lieut. von, 98
 Schleswig-Holstein coast, the, 117
 Schleswig-Holstein, the Dukes of,
 175
 Schroeder, Admiral, Commander-
 in-Chief of German naval
 forces in Flanders, 30
 Schroeder, Prussian sergeant-
 major, 113
 Schultz, Max, espionage agent,
 107, 108, 109, 110, 111, 112, 118
 Schütte-Lanz airships, 93, 94
 Schwieger, Walter, of the *U 20*,
 262, 263, 264, 265, 266

- Sclater, Captain Guy L., of
 H.M.S. *Bulwark*, 77
 Scotland Yard, 105, 125, 134, 136
 Scott, Admiral Sir Percy, 164
 Sea of Marmora, the, 36, 219
 Sedd el Bahr, minefields off, 220,
 221
 Seddin in Pomerania, Zeppelin
 sheds, 88
Seydlitz, the, at Jutland, 161, 234
 Shearer, William, 288
 Sheerness, 77, 78, 122, 124, 128
 Dockyard, 122, 126
 Sheffield, Lancelot Hull, 118
 Sigismund, Prince, of Prussia,
 267
Silber Crescent, the, yacht, espion-
 age, 117, 118
 Sittingbourne, 80, 125
 Skagerrak, the, 53, 217
 Slotterö, 218
 Southend-on-Sea, 78
 Spandau, artillery dépôt at, 114,
 115
 Spee, Count von, 35
 Spezia, 19, 20
St. Vincent, H.M.S., 127
 Spy fever in pre-war Germany,
 102, 103, 104, 105, 106, 107,
 108, 109, 110, 111, 112, 113,
 114, 115, 116, 117, 118, 119,
 120
 "Stahlhelm," the, patriotic
 society, 198, 199, 205
 Stavanger, 216
 Steinhauer, German spy, 127
Stettin, the, German cruiser, 112
 Stockholm, 239
 revelations, the, 84
 Stocks, Lieut.-Commander, of *E 2*,
 183, 184
 Stone, Dr. D. M., 118
Story of Our Submarines, The, by
 "Klaxon" (Commander
 J. G. Bower, R.N.), 183
Strange Intelligence, by Bywater and
 Ferraby, 2, 154
 Strasbourg, 142, 145
 Strasser, Captain Peter, of the
 German Naval Airship Ser-
 vice, 88, 95, 96, 97
 Sturdee, Admiral, 35
 Submarines, British *E, H, and J*,
 boats:
- E 2*, aground at Heligoland, 183,
 184, 185; *E 14*, 222; *E 15*,
 42, 43; *E 20*, 36, 37; *E 42*,
 217, 218; *H 6*, 43; *J 1*, 189
 British, in the Baltic, 2
 German U-boats:
U 9, 258; *U 18*, 260; *U 20*, 262,
 263, 264; *U 27*, 259, 260;
 U 29, 258; *U 35*, 266, 267,
 268, 269; *U 38*, 262, 263;
 U 59, 271; *U 88*, 264, 265;
 UB 14, 37; *UB 33*, 28; *UB 55*,
 28; *UB 65*, German "haunted"
 submarine, 21, 22, 23, 24, 25,
 26, 27, 28, 29, 30; *UB 116*
 [Commander Emsmann], 258,
 259, 260, 261, 262; *UB 450*,
 38, 39, 40, 41, 42
 Supreme Court of the German
 Empire, Leipzig, 105, 107,
 113, 114, 115
Surcouf, the, French submarine,
 288, 289
Sydney, H.M.A.S., 35
 Sylt, island of, 92, 189
Szent Istvan, the, Austrian Dread-
 nought, 76, 77, 245, 247, 248,
 249, 256
- Tanks, British, first use of, in
 France, 49
 Taranto, 73, 75
Tegetthoff, the, Austrian battleship,
 245, 248
 Templeton, Viscount, 83
 Teston village, 80
 Thames Ironworks, the, 53
 Thomas, Lowell, 266
 Thorn fortress, 119
Thüringen, the, at Jutland, 61, 62
Tiger, the, at Jutland, 52
Times, The, Berlin correspondent
 of, 104
 Tirpitz, Admiral von, 102, 116,
 132, 172, 189, 239
 Tondern, in Schleswig, Zeppelin
 sheds, 88, 92
 Tower of London, the, 134
 Treaty of Versailles, the, 163, 187,
 191, 197
 Trench, Captain Bernard, 105, 107
 Trieste, 70, 242, 244
 Trotha, Admiral von, chief of
 staff to Admiral Scheer, 160



- Turkey, 210
Turquoise, the, French submarine, 36
 Tyrwhitt, Admiral, 214
- U-boats. *See* Submarines.
- United States, the declaration of war on Spain, 69
- United States of America, the, naval policy, 273, 274, 275, 276-289, 290-300
 American Naval Intelligence Service, the, 274, 275, 281, 284, 285, 286, 288
- Upchurch, 80
- Ushant, 27
- Valentiner, Max, of the *U 38*, 262, 263, 266
- Vanguard*, the, British Dreadnought, 77, 82, 83, 84
- Venice, 73, 250
- Venlo, Holland, 193
- Victoria, Her Majesty Queen, 178-179
- Vienna, 70
- Vindictive*, H.M.S., 214
- Viribus Unitis*, the, Austrian Dreadnought, 77, 245, 250, 252, 253, 254, 255, 256
- Vladivostok, 282
- Voukovic, Captain von, of the *Viribus Unitis*, 252, 253, 254, 255, 256
- Vulcan Shipyard, the, Hamburg, 196, 233
- Waistell, Captain A. K., later Admiral, 43
- Warrior*, H.M.S., 53, 55, 56, 57, 58, 64
- Warsaw, 115
- Washington Naval Conference, the, 273, 274, 276, 277, 278, 279-286
- Warspite*, the, battleship, 56
- Weddigen, German submarine Commander, 258
- Wernicke, seaman of *UB 65*, 28
- Weser, the, 175, 180
 shipyards, the, 109, 196
- Westcliff-on-Sea, 78
- Wien*, the, Austrian battleship, 76, 242, 243, 244, 245
- Wies, Second Lieut., 140
- Wiesbaden*, the, German cruiser, at Jutland, 55, 56, 64, 65, 66, 67
- Wilhelmshaven, 23, 94, 136, 145, 149, 159, 209, 210, 230, 233, 239, 240
- Willibrord, Saint, 175
- Wills, David, stoker, survivor from the *Princess Irene*, 80
- Willy*, the, out of Drammen, Norwegian steamer, 67
- Winogradoff, Baron von, Russian naval reserve, 113
- Wittmündhafen, Zeppelin station, 92
- Wölferling, German non-com., espionage, 119, 120
- Wulff, Bremen engineer, espionage agent, 107, 108, 109, 110, 111
- Württemberg, 137, 200
- Würzburg, 199, 231
- Yardley, H. O., Major, author of *The American Black Chamber*, 207, 284, 286
- Ypres, 147
- Zabern, Alsace, 138, 139, 141, 142, 143, 150
- Zeebrugge, 23, 28, 38, 44, 47, 151, 182, 210, 214, 270
- Zenne, Leading Stoker Hugh, sole survivor of the *Wiesbaden* at Jutland, 65, 66, 67
- Zeppelin, Count, 101
- Zeppelins, German, *L 1*, 93; *L 2*, 93; *L 3*, 93; *L 30*, 94; *L 53*, 97; *L 54*, 92; *L 57*, 95; *L 59*, 95, 96; *L 60*, 92; *L 70*, 96, 97; *L 71*, 120, 95.
See also German Navy's Airship Policy.
 at Alhorn, five destroyed, *L 47*, *L 51*, *L 58*, *L 46*, *SL 20*, 89, 90, 91, 101
- Zanzibar, 177, 178
- Zurich, 227



United Service Institution of India
Library

Acc. No. M-9117

Class No. 355.34 Book No. BYW

Author Bywater, Hector, C.

Title Their secret purposes.

Date of Issue	Date of Return	Date of Issue	Date of Return



USI - Library



M04550

tution of India

be retained for one month
other member requires

- them.
- * New books must be returned within two weeks.
 - * Not more than two books may be on loan at the same time.
 - * Members are prohibited from transferring books to other members.
 - * Members will be required to pay full price with penalty of any book lost or damaged by them.
 - * Reference and Rare books are not allowed to be taken out of the Library.
 - * Books are liable to be recalled when in special request.